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SATELLITE TEMPERATURE SOUNDING OF THE ATMOSPHERE: GROUND TRUTH --ETC(U)

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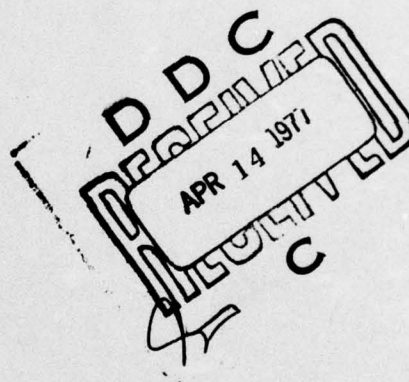
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Satellite Temperature Sounding of the Atmosphere: Ground Truth Analysis

ROBERT A. McCLATCHEY

19 November 1976



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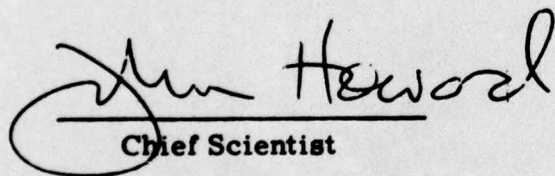


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FOR THE COMMANDER


Chief Scientist

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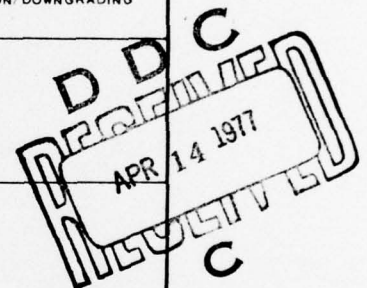
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Defense Meteorological Satellite measurements of the upwelling radiation in the sounder channels of the 15 μ m CO ₂ band have been compared with calculations for a number of clear atmosphere conditions. Great care was used to ensure that complete radiosonde and rocketsonde data coincident in space and time were available. The methods of transmittance and radiance calculations are described and the results compared directly with the satellite measurements. The results indicate a systematic discrepancy in all but one channel. Calculations in general exceeded the measured radiances.		

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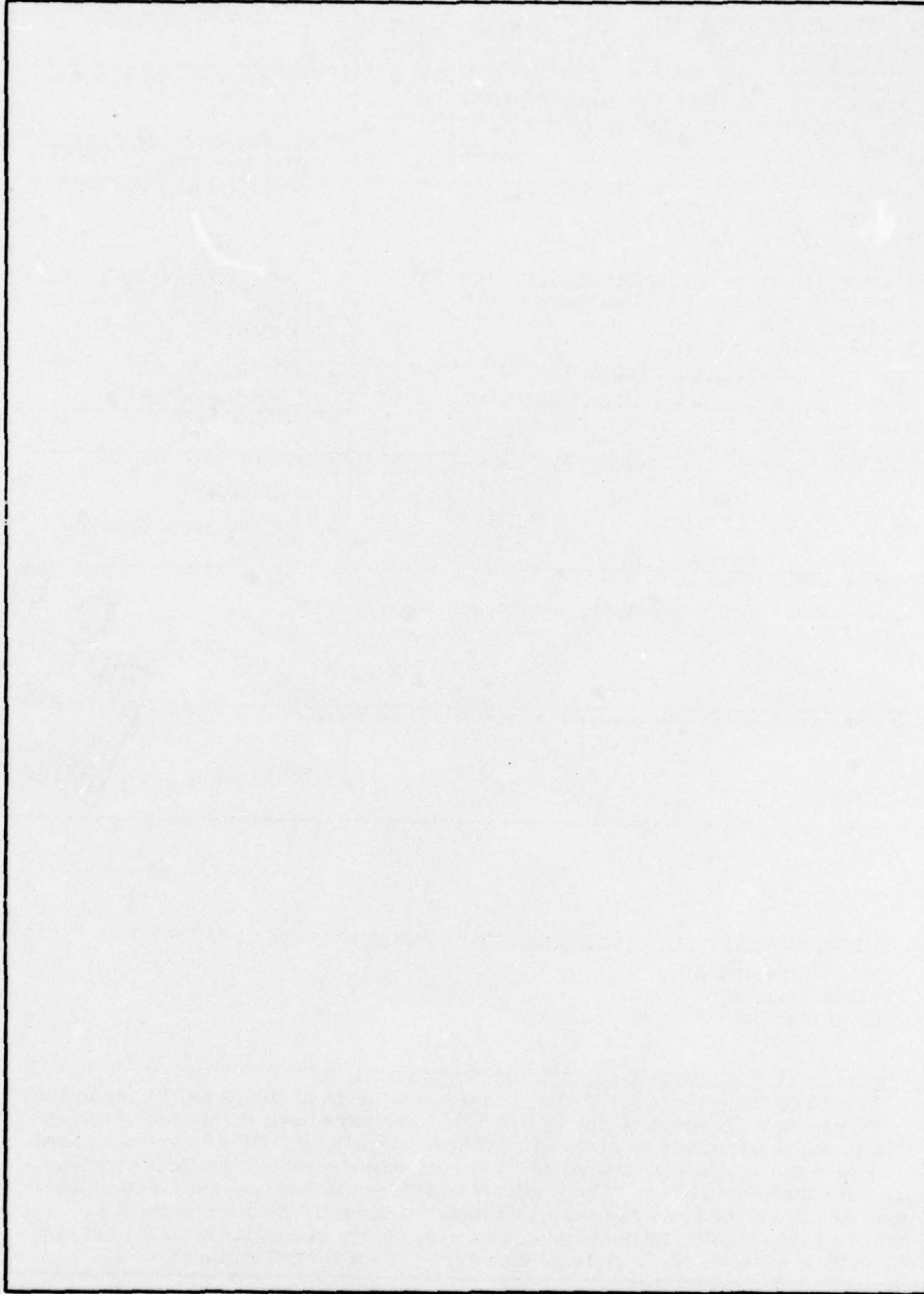
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Satellite Temperature Sounding of the Atmosphere: Ground Truth Analysis

1. INTRODUCTION

Since satellite-borne temperature sounding of the atmosphere was first suggested as a practical measurement, the 15- μ m region of carbon dioxide absorption (and emission) has been utilized. The suggestion to use the 15- μ m band was first made in 1959 by Kaplan.¹ By the mid 1960's, instruments were built and flown by NOAA, and temperature sounding was a reality. By 1972 the first sounder package was flown on a Defense Meteorological Satellite.

Throughout this period, attempts at ground truth comparisons left unexplained discrepancies. These discrepancies were generally dealt with in the software of data analysis schemes, by adjusting transmittances, by adjusting measurements, or by the development of inversion algorithms equivalent to a giant look-up scheme among a climatological library of measured radiances associated with known temperature profiles. It is hoped that through careful analysis, we might better understand some of the causes for discrepancies between measurement and calculation and then discover methods of correcting the errors. In this way we may eventually obtain temperature soundings without recourse to climatological data and we will be more certain that inferred temperatures are a direct result only of the satellite measurements themselves and not simply the result of the climatological statistics used in the interpretation of measured radiances.

(Received for publication 18 November 1976)

1. Kaplan, L. D. (1959) Inference of atmospheric structure from remote radiation measurements, J. Opt. Soc. Amer., **49**:1004.

This report represents an analysis of a limited number of Defense Meteorological Satellite radiance observations made during the period from February to April 1975. All of the sounding data and corresponding visible and infrared imagery obtained during the time period were scanned and a small number (9) of cases were identified where satellite observations were obtained in the vicinity of a radiosonde and rocketsonde site and conditions were deemed by us to be clear. We also demanded that the satellite track over the "ground truth" site was within 100 nm of the station and within 3 hr of the radiosonde/rocketsonde launch time.

The decision was made at the outset that measured and computed radiances would be compared (as opposed to temperatures). This decision allows the questions associated with temperature inversion to be removed from discussion here. Allowing for on-board calibration issues, radiance is the fundamental quantity being measured. Given a sufficiently detailed description of the atmosphere in terms of temperature and absolute humidity as functions of pressure, and given a detailed description of the filter functions in the 15 μm band channels, and given an appropriate computation scheme for atmospheric transmittance, the calculation of upwelling radiance is a straightforward problem.

The solution to the equation of radiative transfer is presented in Eq. (1).

$$I_{\Delta\nu} = \left[\int_{\Delta\nu} f(\nu) \int_{\tau_g}^{1.0} B(\nu, T) d\tau d\nu + \int_{\Delta\nu} f(\nu) B(\nu, T_s) d\nu \right] / \int_{\Delta\nu} f(\nu) d\nu \quad (1)$$

where

$I_{\Delta\nu}$ is the radiant intensity in $\text{W}/\text{cm}^2/\text{sr}/\text{cm}^{-1}$,

$B(\nu, T)$ is the Planck blackbody function,

T is the atmospheric temperature and T_s is the surface temperature,

τ is the transmittance of the atmosphere from the altitude associated with the pressure level, p , to the top of the atmosphere,

ν is the frequency (given here in cm^{-1}), and

$f(\nu)$ is the instrument filter function.

If we assume that $B(\nu, T)$ is relatively constant over the width of a filter function (10 or 12 cm^{-1} wide), and if we write $\ell_X(p)$ as independent variable instead of τ , we obtain Eq. (2), where the quantity, $d\bar{\tau}/d(\ell_X p)$, now becomes a weighting function that can be interpreted as defining the atmospheric layer primarily responsible for the upwelling emission in the spectral interval, $\Delta\nu$.

$$I_{\Delta\nu} = \int_{p_g}^0 B(\bar{\nu}, \tau) \frac{d\bar{\tau}}{d(\ell_X p)} d\ell_X p + B(\bar{\nu}, T_s) \quad (2)$$

$$\bar{\tau}_{\Delta} = \frac{\int f(\nu) \tau(\nu) d\nu}{\int f(\nu) d\nu} . \quad (3)$$

2. GROUND TRUTH DATA

A list of all stations used in this study together with the dates of measurement are included in Table 4. Table 1 provides the detailed atmospheric profiles of temperature, water vapor, and ozone as functions of pressure. The pressure levels are those reported in the radiosonde and rocketsonde data. Radiosonde information was generally extended from the surface to about the 10 mb pressure level with data at higher altitudes obtained from rocketsondes. The ozone data were not obtained from the radiosonde site, but were introduced from climatological models of ozone distribution. Since ozone only has a minor effect on the atmospheric transmittance in the 15 μm region, this is not expected to lead to serious error.

3. DMSP FILTER FUNCTIONS

Data from two separate satellites are included in this analysis, the Block 5C noon satellite launched 16 March 1974 designated 8531 and the Block 5C morning satellite launched 8 August 1974 designated 9532. Table 2 provides the digitized filter functions for the six channels in the 15 μm CO_2 band for each of these satellite sensors. The listed frequencies are nominally the central frequency for each filter function. Note that the Q-branch filters (located at 668 cm^{-1}), have widths at half-maximum of about 3.5 cm^{-1} whereas the other channels have widths at half-maximum of about 12 cm^{-1} . Note also that the 668 cm^{-1} filters are digitized non-uniformly with a greater spacing near the edges of the filters.

4. ATMOSPHERIC TRANSMITTANCE

The atmospheric transmittances are computed by averaging over the appropriate filter function by first computing the monochromatic transmittances for the appropriate atmospheric path taking into account the temperature, pressure, water vapor, and ozone distributions. These monochromatic transmittances were then weighted by the appropriate filter functions as indicated in Eq. (3) in order to generate the appropriate averaged transmittances. Prior investigations indicated that a monochromatic step of 0.1 cm^{-1} would obtain a result of high accuracy in the vicinity of transmittance near 0.5, even at high altitudes. Therefore, the step size of 0.1 cm^{-1} was used throughout. The AFCRL Atmospheric Absorption Line

Parameters Compilation,² was used for all absorption lines in the spectral region of interest. The calculations were based on the January 1976 data tape. Some recent comparisons of these calculations with some recent measurements³ are presented in Figures 1 and 2.

The Lorentz line shape was used throughout with a line-wing modification of CO₂ proposed by Burch.⁴ This line-shape factor forces all line contributions to zero 15 cm⁻¹ from the line center. In addition to the contributions from water vapor lines in the vicinity of the filters, a contribution is included for the water vapor continuum based on an extrapolation in the 15 μm region from the laboratory measurements of Burch and others as summarized by Bignell.⁵ The absorption coefficient associated with selfbroadening is given in Figure 3 and has been introduced independent of temperature. The ratio of nitrogen broadening to self-broadening was taken to be 0.005. For a more thorough discussion of this matter, see Burch.⁴

The transmittances for the 9 cases included in this investigation are given in Table 3 together with the computed radiances.

5. WEIGHTING FUNCTIONS

The concept of "weighting function" was introduced in Eq. (2). In general, if we are dealing with atmospheric absorption by CO₂ alone and if the atmospheric model is defined with sufficiently detailed stratification, a uniform series of weighting functions would be produced by a calculation of the logarithmic derivative of the transmittance. An example of such a set of curves is shown in Figure 4 which was computed for an atmospheric model containing only CO₂ in the 15 μm region with filters similarly defined as the DMSP filters used in this investigation. Figure 4 was based on the U.S. Standard Atmosphere containing 44 levels between the surface and space. In addition to the standard weighting function defined in Eq. (2), a set of "Energy Functions" can be defined for a given atmospheric profile. Figure 5 provides the corresponding Energy Functions for the U.S. Standard Atmosphere, 1962 and are defined by Eq. (4). These curves have been normalized to

2. McClatchey, R.A., Benedict, W.S., Clough, S.A., Burch, D.E., Calfee, R.F., Fox, K., Rothman, L.S., and Garing, J.S. (1973) AFCRL Atmospheric Absorption Line Parameters Compilation, AFCRL-TR-73-0096.
3. Burch, D.E. (1976) (private communication).
4. Burch, D.E. (1970) Semi-Annual Technical Report: Investigation of the Absorption of Infrared Radiation by Atmospheric Gases, Aeronutronic Report U-4784.
5. Bignell, K.J. (1970) Quart. J. Roy. Met. Soc., 96:409.

unity at their maximum values. In a sense they are more useful than the standard weighting functions as the area under these curves represents the actual energy arising from the atmosphere bounded by any pair of pressure levels.

Owing to the complexity introduced by using the actual radiosonde/rocketsonde pressure levels in our calculations and also the contributions to the weighting functions by the irregular (but realistic) distributions of water vapor in the lower troposphere, the weighting functions shown in Figures 6 and 7 are seen to be less smooth and less regular than those in Figures 4 and 5.

$$E(l, p) = B(\bar{\nu}, T(l, p)) \frac{d\bar{\tau}}{dl, p} \quad (4)$$

6. RADIANCE CALCULATIONS

The calculation of radiance proceeds in a straightforward manner, once the mean transmittances defined in Eq. (3) have been computed, from each pressure level to space. We need only associate a $B(\bar{\nu}, T)$ value with each τ value and find the area under the resulting curve. Examples of the required numerical quadrature are found in Figures 8 and 9 which represent the $B(\bar{\nu}, T)$ vs τ relationship for the 668 and 727 channels for the Barking Sands comparison of 24 February 1975. These curves are seen to be well defined, thus being amenable to simple quadrature techniques. The results of radiance calculations for the nine cases investigated are presented in Table 4 together with the measured radiances. The calculations have assumed that the surface temperature was equal to the lowest altitude temperature reported as part of the radiosonde measurement. This may help to explain the discrepancy in the 746 cm^{-1} channel. In general the results are good only for the 676 cm^{-1} channel. All the other channels show significant discrepancies and on balance the discrepancies are systematic, the calculations being greater than the measurements. At this time, there is no satisfactory explanation for these discrepancies, but we are embarking on a special study of atmospheric transmittance in the $15 \mu\text{m}$ CO_2 band in order to establish the transmittance validity with respect to satellite temperature sounding.

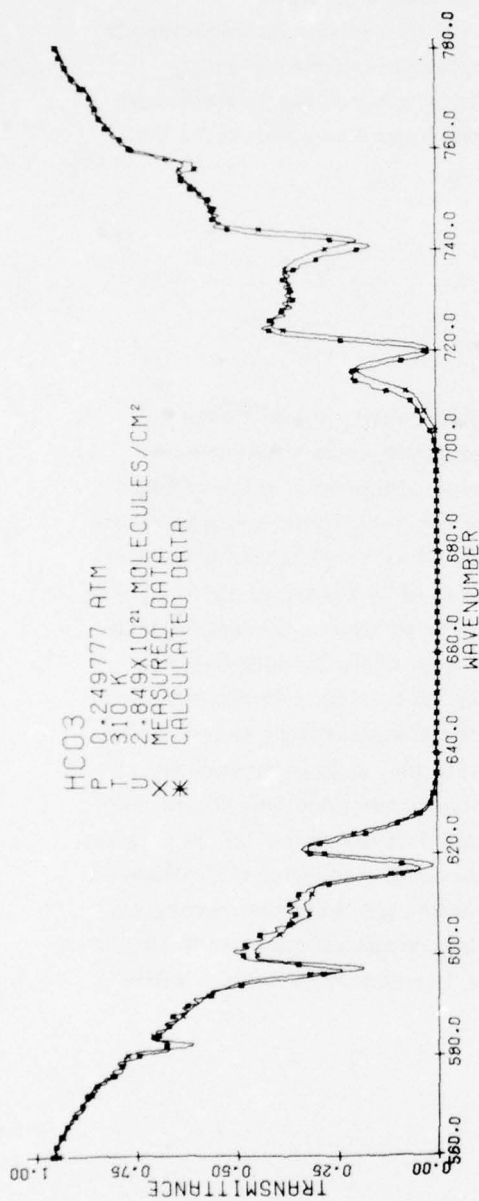


Figure 1. Comparisons of Measured Laboratory Transmittance Spectra With Computations For the 15 μm CO₂ Band For Two Sets of Conditions Corresponding Approximately to an Atmospheric Path From 500 mb to Space

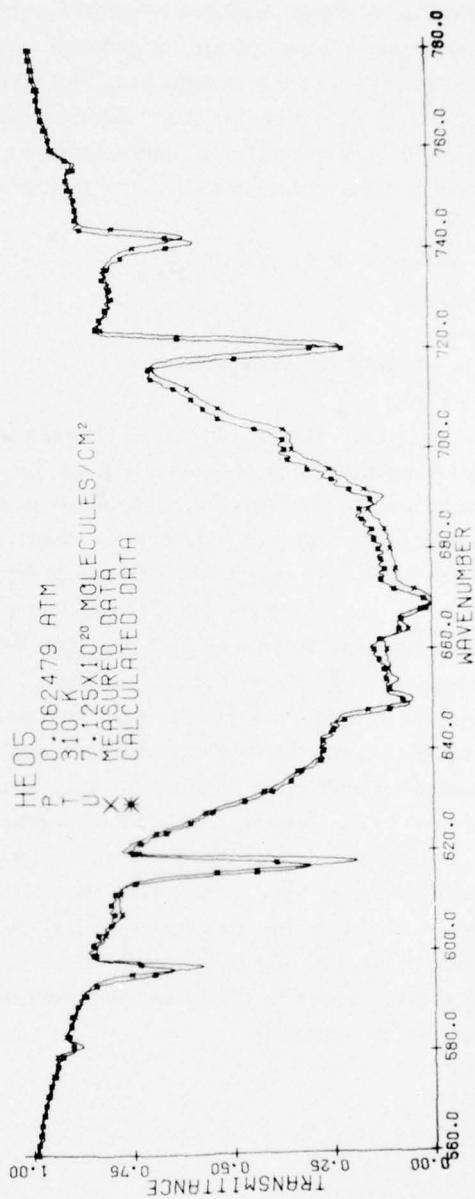


Figure 2. Comparisons of Measured Laboratory Transmittance Spectra With Computations For the 15 μm CO₂ Band For Two Sets of Conditions Corresponding Approximately to an Atmospheric Path From 125 mb to Space

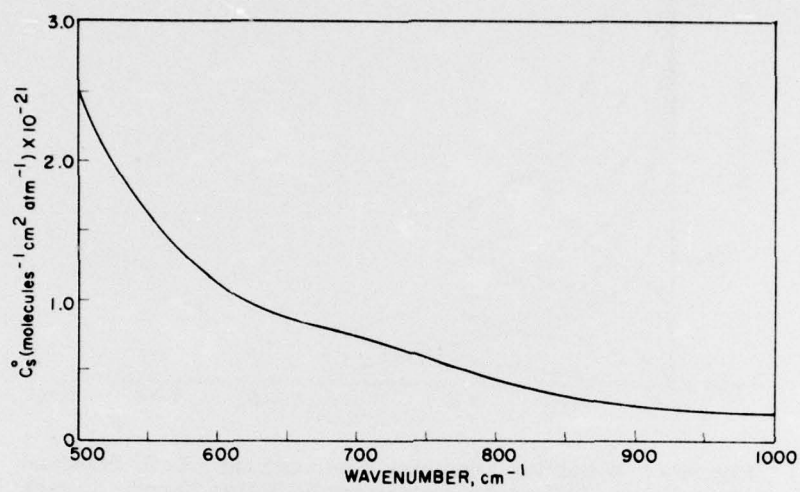


Figure 3. Self-Broadening Absorption Coefficient Used in the Calculation of the Water Vapor Continuum in the $15 \mu\text{m}$ Region

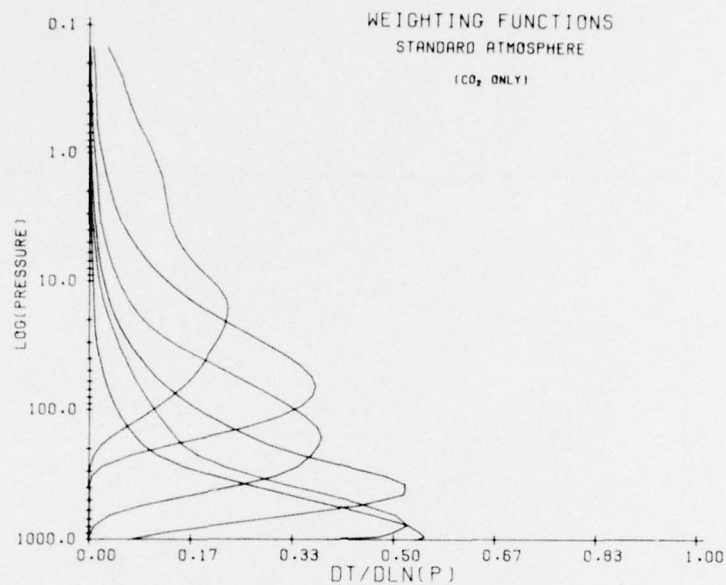


Figure 4. Weighting Functions Computed for a U.S. Standard Atmosphere, 1962 Model Containing No Water Vapor. Central frequencies are the same as the DMSP central frequencies, but filter functions were idealized triangular functions

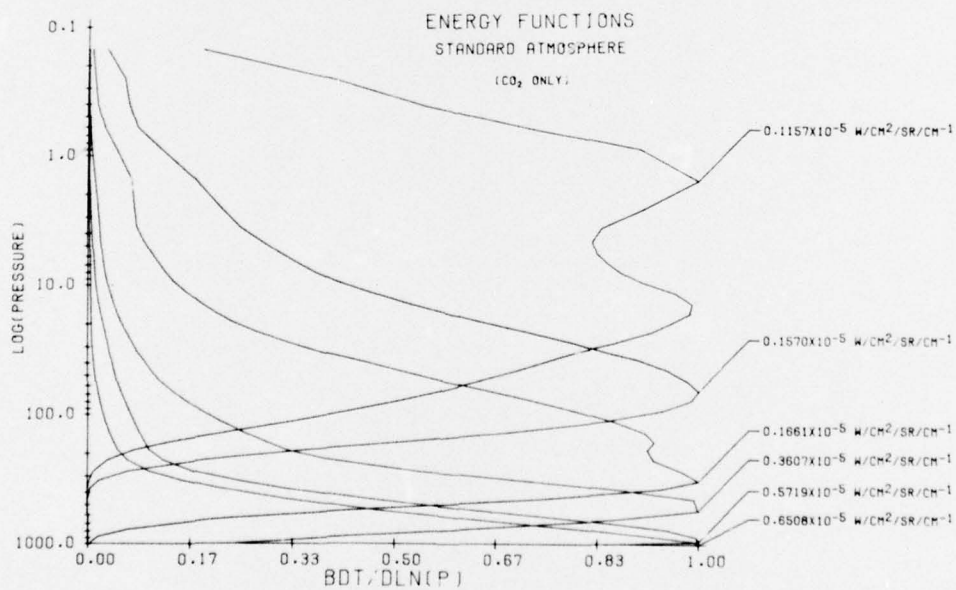


Figure 5. Energy Functions Corresponding to the Weighting Functions of Figure 4

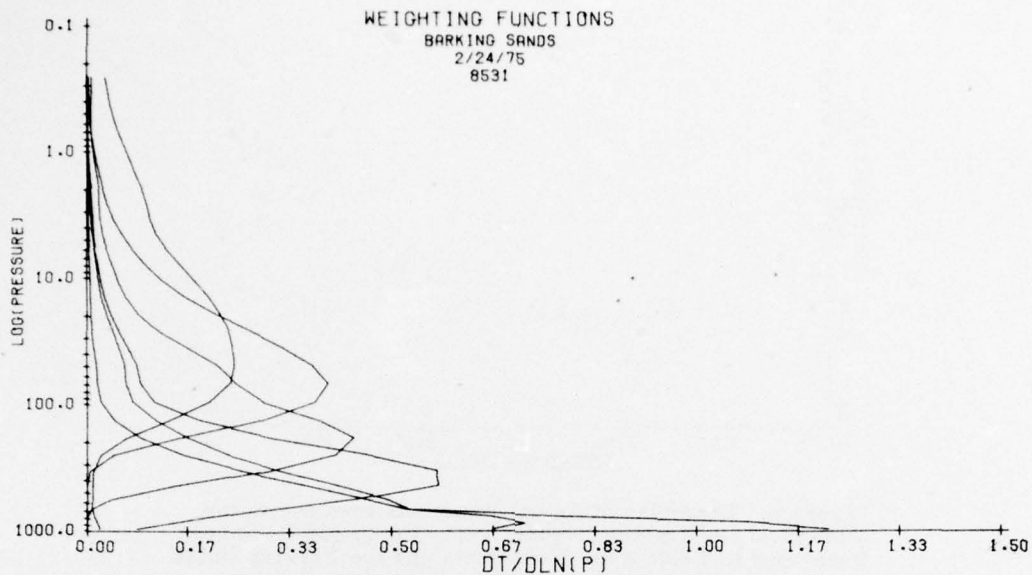


Figure 6. Computed Weighting Functions Corresponding to One of the Actual Atmospheric Soundings Studied

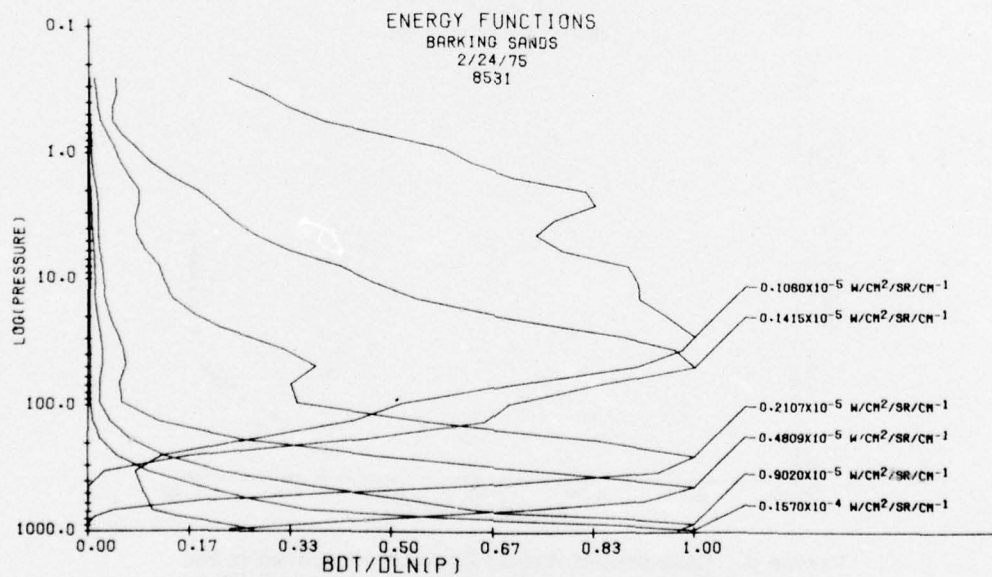


Figure 7. Computed Energy Functions Corresponding to One of the Actual Atmospheric Soundings Studied

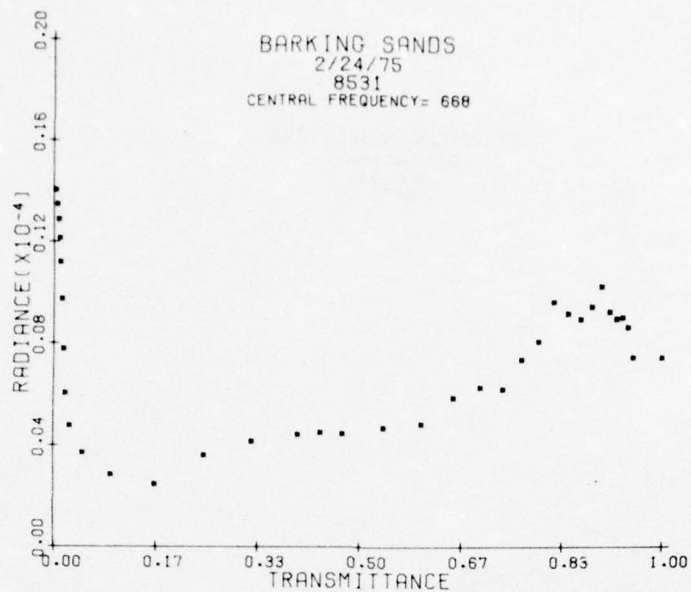


Figure 8. Examples of Actual Functions Involved in the Numerical Quadrature Leading to the Computed Radiances Presented in Table 4 for 2 Channels and the Barking Sands Comparison of 24 February 1975. Central Frequency Equals 668

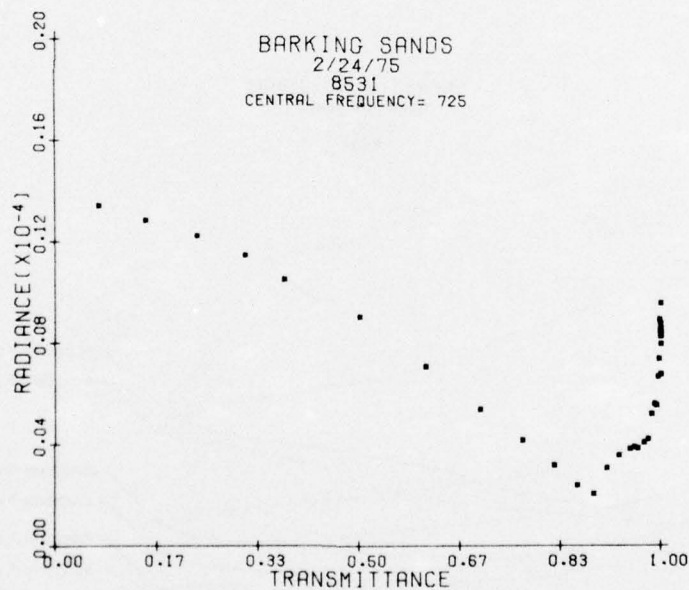


Figure 9. Examples of Actual Functions Involved in the Numerical Quadrature Leading to the Computed Radiances Presented in Table 4 for 2 Channels and the Barking Sands Comparison of 24 February 1975. Central Frequency Equals 725

Table 1. Atmospheric Definitions Based on Radiosonde and Rocketsonde Observations

PT. MUGU
2/17/75
8531

PARKING SANDS
2/18/75
9532

TEMPERATURE (K)	H ₂ O MOLECULES/ CM SQ	CM SQ	MOLECULES/ CM SQ	TEMPERATURE (K)	H ₂ O MOLECULES/ CM SQ	CM SQ	MOLECULES/ CM SQ
251.46	0.	0.0000	0.	257.77	0.	0.	0.
251.66	0.	0.0000	0.	257.77	0.	0.	7.3.95+15
257.69	0.	0.0000	0.	257.77	0.	0.	1.1255+16
262.48	0.	0.0000	0.	263.18	0.	0.	1.7145+16
266.00	0.	0.0000	0.	263.18	0.	0.	3.3402+16
262.87	0.	0.0000	0.	263.18	0.	0.	9.3382+16
262.35	0.	0.0000	0.	263.18	0.	0.	1.5335+17
265.18	0.	0.0000	0.	263.18	0.	0.	2.5132+17
271.44	0.	0.0000	0.	263.18	0.	0.	4.0452+17
265.77	0.	0.0000	0.	263.18	0.	0.	7.6382+17
262.77	0.	0.0000	0.	263.18	0.	0.	8.5425+17
268.45	0.	0.0000	0.	263.18	0.	0.	1.1145+18
279.02	0.	0.0000	0.	263.18	0.	0.	1.7317+18
272.77	0.	0.0000	0.	263.18	0.	0.	2.0.12+18
227.59	0.	0.0000	0.	263.18	0.	0.	3.5015+18
220.39	0.	0.0000	0.	263.18	0.	0.	4.2883+18
218.44	0.	0.0000	0.	263.18	0.	0.	4.9663+18
214.40	0.	0.0000	0.	263.18	0.	0.	5.4632+18
213.30	0.	0.0000	0.	263.18	0.	0.	5.6335+18
211.00	0.	0.0000	0.	263.18	0.	0.	5.8493+18
211.00	0.	0.0000	0.	263.18	0.	0.	5.9552+18
210.00	0.	0.0000	0.	263.18	0.	0.	6.1032+18
210.00	0.	0.0000	0.	263.18	0.	0.	6.2732+18
210.00	0.	0.0000	0.	263.18	0.	0.	6.4332+18
210.00	0.	0.0000	0.	263.18	0.	0.	6.5632+18
210.00	0.	0.0000	0.	263.18	0.	0.	6.6632+18
210.00	0.	0.0000	0.	263.18	0.	0.	6.7632+18
210.00	0.	0.0000	0.	263.18	0.	0.	6.8632+18
210.00	0.	0.0000	0.	263.18	0.	0.	6.9632+18
210.00	0.	0.0000	0.	263.18	0.	0.	7.0632+18
210.00	0.	0.0000	0.	263.18	0.	0.	7.1632+18
210.00	0.	0.0000	0.	263.18	0.	0.	7.2632+18
210.00	0.	0.0000	0.	263.18	0.	0.	7.3632+18
210.00	0.	0.0000	0.	263.18	0.	0.	7.4632+18
210.00	0.	0.0000	0.	263.18	0.	0.	7.5632+18
210.00	0.	0.0000	0.	263.18	0.	0.	7.6632+18
210.00	0.	0.0000	0.	263.18	0.	0.	7.7632+18
210.00	0.	0.0000	0.	263.18	0.	0.	7.8632+18
210.00	0.	0.0000	0.	263.18	0.	0.	7.9632+18
210.00	0.	0.0000	0.	263.18	0.	0.	8.0632+18
210.00	0.	0.0000	0.	263.18	0.	0.	8.1632+18
210.00	0.	0.0000	0.	263.18	0.	0.	8.2632+18
210.00	0.	0.0000	0.	263.18	0.	0.	8.3632+18
210.00	0.	0.0000	0.	263.18	0.	0.	8.4632+18
210.00	0.	0.0000	0.	263.18	0.	0.	8.5632+18
210.00	0.	0.0000	0.	263.18	0.	0.	8.6632+18
210.00	0.	0.0000	0.	263.18	0.	0.	8.7632+18
210.00	0.	0.0000	0.	263.18	0.	0.	8.8632+18
210.00	0.	0.0000	0.	263.18	0.	0.	8.9632+18
210.00	0.	0.0000	0.	263.18	0.	0.	9.0632+18
210.00	0.	0.0000	0.	263.18	0.	0.	9.1632+18
210.00	0.	0.0000	0.	263.18	0.	0.	9.2632+18
210.00	0.	0.0000	0.	263.18	0.	0.	9.3632+18
210.00	0.	0.0000	0.	263.18	0.	0.	9.4632+18
210.00	0.	0.0000	0.	263.18	0.	0.	9.5632+18
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210.00	0.	0.0000	0.	263.18	0.	0.	10.2632+18
210.00	0.	0.0000	0.	263.18	0.	0.	10.3632+18
210.00	0.	0.0000	0.	263.18	0.	0.	10.4632+18
210.00	0.	0.0000	0.	263.18	0.	0.	10.5632+18
210.00	0.	0.0000	0.	263.18	0.	0.	10.6632+18
210.00	0.	0.0000	0.	263.18	0.	0.	10.7632+18
210.00	0.	0.0000	0.	263.18	0.	0.	10.8632+18
210.00	0.	0.0000	0.	263.18	0.	0.	10.9632+18
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210.00	0.	0.0000	0.	263.18	0.	0.	11.1632+18
210.00	0.	0.0000	0.	263.18	0.	0.	11.2632+18
210.00	0.	0.0000	0.	263.18	0.	0.	11.3632+18
210.00	0.	0.0000	0.	263.18	0.	0.	11.4632+18
210.00	0.	0.0000	0.	263.18	0.	0.	11.5632+18
210.00	0.	0.0000	0.	263.18	0.	0.	11.6632+18
210.00	0.	0.0000	0.	263.18	0.	0.	11.7632+18
210.00	0.	0.0000	0.	263.18	0.	0.	11.8632+18
210.00	0.	0.0000	0.	263.18	0.	0.	11.9632+18
210.00	0.	0.0000	0.	263.18	0.	0.	12.0632+18
210.00	0.	0.0000	0.	263.18	0.	0.	12.1632+18
210.00	0.	0.0000	0.	263.18	0.	0.	12.2632+18
210.00	0.	0.0000	0.	263.18	0.	0.	12.3632+18
210.00	0.	0.0000	0.	263.18	0.	0.	12.4632+18
210.00	0.	0.0000	0.	263.18	0.	0.	12.5632+18
210.00	0.	0.0000	0.	263.18	0.	0.	12.6632+18
210.00	0.	0.0000	0.	263.18	0.	0.	12.7632+18
210.00	0.	0.0000	0.	263.18	0.	0.	12.8632+18
210.00	0.	0.0000	0.	263.18	0.	0.	12.9632+18
210.00	0.	0.0000	0.	263.18	0.	0.	13.0632+18
210.00	0.	0.0000	0.	263.18	0.	0.	13.1632+18
210.00	0.	0.0000	0.	263.18	0.	0.	13.2632+18
210.00	0.	0.0000	0.	263.18	0.	0.	13.3632+18
210.00	0.	0.0000	0.	263.18	0.	0.	13.4632+18
210.00	0.	0.0000	0.	263.18	0.	0.	13.5632+18
210.00	0.	0.0000	0.	263.18	0.	0.	13.6632+18
210.00	0.	0.0000	0.	263.18	0.	0.	13.7632+18
210.00	0.	0.0000	0.	263.18	0.	0.	13.8632+18
210.00	0.	0.0000	0.	263.18	0.	0.	13.9632+18
210.00	0.	0.0000	0.	263.18	0.	0.	14.0632+18
210.00	0.	0.0000	0.	263.18	0.	0.	14.1632+18
210.00	0.	0.0000	0.	263.18	0.	0.	14.2632+18
210.00	0.	0.0000	0.	263.18	0.	0.	14.3632+18
210.00	0.	0.0000	0.	263.18	0.	0.	14.4632+18
210.00	0.	0.0000	0.	263.18	0.	0.	14.5632+18
210.00	0.	0.0000	0.	263.18	0.	0.	14.6632+18
210.00	0.	0.0000	0.	263.18	0.	0.	14.7632+18
210.00	0.	0.0000	0.	263.18	0.	0.	14.8632+18
210.00	0.	0.0000	0.	263.18	0.	0.	14.9632+18
210.00	0.	0.0000	0.	263.18	0.	0.	15.0632+18
210.00	0.	0.0000	0.	263.18	0.	0.	15.1632+18
210.00	0.	0.0000	0.	263.18	0.	0.	15.2632+18
210.00	0.	0.0000	0.	263.18	0.	0.	15.3632+18
210.00	0.	0.0000	0.	263.18	0.	0.	15.4632+18
210.00	0.	0.0000	0.	263.18	0.	0.	15.5632+18
210.00	0.	0.0000	0.	263.18	0.	0.	15.6632+18
210.00	0.	0.0000	0.	263.18	0.	0.	15.7632+18
210.00	0.	0.0000	0.	263.18	0.	0.	15.8632+18
210.00	0.	0.0000	0.	263.18	0.	0.	15.9632+18
210.00	0.	0.0000	0.	263.18	0.	0.	16.0632+18
210.00	0.	0.0000	0.	263.18	0.	0.	16.1632+18
210.00	0.	0.0000	0.	263.18	0.	0.	16.2632+18
210.00	0.	0.0000	0.	263.18	0.	0.	16.3632+18
210.00	0.	0.0000	0.	263.18	0.	0.	16.4632+18
210.00	0.	0.0000	0.	263.18	0.	0.	16.5632+18
210.00	0.	0.0000	0.	263.18	0.	0.	16.6632+18
210.00	0.	0.0000	0.	263.18	0.	0.	16.7632+18
210.00	0.	0.0000	0.	263.18	0.	0.	16.8632+18
210.00	0.	0.0000	0.	263.18	0.	0.	16.9632+18
210.00	0.	0.0000	0.	263.18	0.	0.	17.0632+18
210.00	0.	0.0000	0.	263.18	0.	0.	17.1632+18
210.00	0.	0.0000	0.	263.18	0.	0.	17.2632+18
210.00	0.	0.0000	0.	263.18	0.	0.	17.3632+18
210.00	0.	0.0000	0.	263.18	0.	0.	17.4632+18
210.00	0.	0.0000	0.	263.18	0.	0.	17.5632+18
210.00	0.	0.0000	0.	263.18	0.	0.	17.6632+18
210.00	0.	0.0000	0.	263.18	0.	0.	17.7632+18
210.00	0.	0.0000	0.	263.18	0.	0.	17.8632+18
210.00	0.	0.0000	0.	263.18	0.	0.	17.9632+18
210.00	0.	0.0000	0.	263.18	0.	0.	18.0632+18
210.00	0.	0.0000	0.	263.18	0.	0.	18.1632+18
210.00	0.	0.0000	0.	263.18	0.	0.	18.2632+18
210.00	0.	0.0000	0.	263.18	0.	0.	18.3632+18
210.00	0.	0.0000	0.	263.18	0.	0.	18.4632+18
210.00	0.	0.0000	0.	263.18	0.	0.	18.5632+18
210.00	0.	0.0000	0.	263.18	0.	0.	18.6632+18
210.00	0.	0.0000	0.	263.18	0.	0.	18.7632+18
210.00	0.	0.0000	0.	263.18	0.	0.	18.8632+18
210.00	0.	0.0000	0.	263.18	0.	0.	18.9632+18
210.00	0.	0.0000	0.	263.18	0.	0.	19.0632+18
210.00	0.	0.0000	0.	263.18	0.	0.	19.1632+18
210.00	0.	0.0000	0.	263.18	0.	0.	19.2632+18
210.00	0.	0.0000	0.	263.18	0.	0.	19.3632+18
210.00	0.	0.0000	0.	263.18	0.	0.	19.4632+18
210.00	0.	0.0000	0.	263.18	0.	0.	19.5632+18
210.00	0.	0.0000	0.	263.18	0.	0.	19.6632+18
210.00	0.	0.0000	0.	263.18	0.	0.	19.7632+18
210.00	0.	0.0000	0.	263.18	0.	0.	19.8632+18
210.00	0.	0.0000	0.	263.18	0.	0.	19.9632+18
210.00	0.	0.0000	0.	263.18	0.	0.	20.0632+18
210.00	0.	0.0000	0.	263.18	0.	0.	20.1632+18
210.00	0.	0.0000	0.	263.18	0.	0.	20.2632+18
210.00	0.	0.0000					

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Table 1. (Cont)

KHAJALEIN
2/20/75
9532

BARKING SANDS
2/24/75
8531

PRESSURE (Wg)	TEMPERATURE (K)	H2O MOLECULES/ CM SQ	O3 MOLECULES/ CM SQ	TEMPERATURE (K)	H2O MOLECULES/ CM SQ	O3 MOLECULES/ CM SQ
0.0000	248.70	0.	8.93E+15	247.73	0.	0.
.1126	248.70	0.	2.277E+15	247.73	0.	5.995E+15
.3114	263.57	0.	1.032E+16	257.40	0.	8.277E+15
.6116	269.13	0.	1.917E+16	260.36	0.	1.116E+16
1.1136	272.22	0.	4.465E+16	259.27	0.	1.490E+16
1.5088	272.22	0.	7.095E+16	262.75	0.	1.908E+16
2.2556	260.17	0.	1.405E+17	269.73	0.	2.579E+16
7.5594	253.71	0.	2.923E+17	263.47	0.	3.960E+16
5.1076	241.11	0.	5.091E+17	269.75	0.	5.974E+16
6.7461	242.22	0.	7.450E+17	261.76	0.	9.140E+16
10.8153	234.80	0.	1.383E+18	264.73	0.	1.441E+17
16.2479	229.26	0.	2.121E+18	262.74	0.	2.133E+17
26.8219	227.77	0.	3.439E+18	246.64	0.	3.296E+17
37.7995	215.59	0.	4.338E+18	236.66	0.	4.928E+17
50.0700	203.25	0.	4.946E+18	237.20	0.	7.272E+17
76.0700	202.75	0.	5.436E+18	233.28	0.	1.071E+18
100.0700	192.15	0.	5.663E+18	223.02	0.	1.56E+18
178.7700	215.14	0.	5.877E+18	221.73	0.	2.116E+18
301.3900	247.92	5.428E+20	6.056E+18	218.82	0.	2.886E+18
408.1900	260.73	2.256E+21	6.157E+18	219.74	0.	3.374E+18
510.3700	268.77	5.292E+21	6.255E+18	218.55	0.	3.810E+18
616.9900	270.46	1.048E+22	6.339E+18	215.46	0.	4.675E+18
758.0700	280.44	2.181E+22	6.446E+18	209.75	0.	5.143E+18
801.8500	290.11	2.681E+22	6.473E+18	193.75	0.	5.733E+18
852.1500	290.70	3.773E+22	6.513E+18	190.25	0.	5.712E+18
903.0000	292.00	5.401E+22	6.543E+18	210.45	0.	5.825E+18
956.6200	295.59	7.505E+22	6.593E+18	220.45	0.	6.041E+18
984.2300	298.00	8.875E+22	6.611E+18	235.15	0.	6.142E+18
1011.9000	302.21	1.024E+23	6.613E+18	250.15	0.	6.142E+18
				265.75	0.	6.241E+18
				275.65	2.423E+20	6.353E+18
				281.05	6.275E+20	6.415E+18
				286.75	5.405E+21	6.431E+18
				290.55	2.182E+22	6.511E+18
				294.75	5.265E+22	6.551E+18

Table 1. (Cont)

BARKING SANDS 2/26/75 8531				KWAJALEIN 2/27/75 9532			
PRESSURE (MM)	TEMPERATURE (K)	H ₂ O MOLECULES/ CM SQ	O ₃ MOLECULES/ CM SQ	TEMPERATURE (K)	H ₂ O MOLECULES/ CM SQ	O ₃ MOLECULES/ CM SQ	
0.000	259.51	0.	0.	249.45	0.	0.	0.87E+15
0.308	259.51	0.	0.91E+15	249.62	0.	0.	0.11E+15
0.500	259.54	0.	1.53E+16	253.56	0.	0.	1.56E+15
0.700	264.58	0.	2.21E+16	269.73	0.	0.	2.24E+16
1.000	264.66	0.	3.70E+16	269.77	0.	0.	3.71E+16
2.000	261.72	0.	1.18E+17	270.57	0.	0.	7.03E+16
5.000	236.56	0.	4.89E+17	270.41	0.	0.	1.21E+17
10.000	228.59	0.	1.2E+18	262.81	0.	0.	3.71E+17
20.000	221.64	0.	2.62E+18	250.96	0.	0.	8.39E+17
30.000	216.92	0.	3.81E+18	237.42	0.	0.	1.25E+18
40.000	216.97	0.	4.32E+18	232.48	0.	0.	1.53E+18
50.000	215.75	0.	4.94E+18	230.62	0.	0.	2.67E+18
60.000	210.35	0.	5.43E+18	226.07	0.	0.	3.89E+18
70.000	198.15	0.	5.43E+18	218.49	0.	0.	4.97E+18
80.000	196.75	0.	5.63E+18	209.44	0.	0.	5.6E+18
100.000	208.15	0.	5.81E+18	190.23	0.	0.	5.81E+18
150.000	219.25	0.	5.91E+18	207.73	0.	0.	5.91E+18
200.000	219.25	0.	6.05E+18	220.29	0.	0.	5.99E+18
300.000	245.15	0.	6.11E+18	231.16	0.	0.	6.03E+18
400.000	262.95	0.	6.13E+18	237.77	0.	0.	6.07E+18
450.000	260.85	0.	6.23E+18	241.53	6.17E+19	0.	6.07E+18
500.000	266.25	0.	6.27E+18	248.04	3.11E+20	0.	6.13E+18
550.000	271.15	0.	6.23E+18	250.97	7.05E+20	0.	6.13E+18
600.000	277.75	7.20E+19	6.32E+18	257.83	1.26E+21	0.	6.13E+18
650.000	276.05	2.22E+20	6.37E+18	267.23	2.12E+21	0.	6.22E+18
700.000	280.55	4.81E+20	6.43E+18	266.53	2.90E+21	0.	6.25E+18
750.000	282.55	6.76E+20	6.47E+18	268.41	3.85E+21	0.	6.25E+18
800.000	287.25	8.62E+20	6.47E+18	274.20	5.91E+21	0.	6.33E+18
850.000	289.25	1.61E+21	6.51E+18	274.81	9.17E+21	0.	6.41E+18
900.000	287.25	2.15E+21	6.51E+18	285.04	1.89E+22	0.	6.47E+18
950.000	285.25	5.12E+21	6.52E+18	286.49	3.25E+22	0.	6.51E+18
1000.000	286.55	1.39E+22	6.55E+18	289.58	4.91E+22	0.	6.53E+18
1050.000	293.25	3.07E+22	6.57E+18	291.18	5.70E+22	0.	6.55E+18
1070.000	294.15	5.22E+22	6.61E+18	293.98	7.47E+22	0.	6.56E+18
1090.000	292.35	5.66E+22	6.61E+18	295.52	8.66E+22	0.	6.58E+18
				297.94	1.00E+23	0.	6.60E+18
				301.47	1.14E+23	0.	6.61E+18
				1011.600			

Table 1. (Cont)

PARKING SANDS
2/28/75
9532

KWAJALEIN
2/28/75
8531

PRESSURE (MB)	TEMPERATURE (K)	H2O MOLECULES/ CM SQ	O3 MOLECULES/ CM SQ	TEMPERATURE (K)	H2O MOLECULES/ CM SQ	O3 MOLECULES/ CM SQ
0.0000	253.39	0.	0.	251.42	0.	0.
.3987	253.99	8.91E+15	0.	251.42	0.	1.95E+15
.4000	262.61	1.2E+16	0.	251.42	0.	5.43E+15
.5954	266.29	1.82E+16	0.	255.80	0.	0.02E+15
.6645	262.68	2.03E+16	0.	257.84	0.	1.53E+16
.8574	264.26	2.75E+16	0.	267.05	0.	2.39E+16
1.1142	249.16	4.45E+16	0.	275.99	0.	4.33E+16
1.6574	261.18	8.33E+16	0.	262.73	0.	1.22E+17
2.8017	239.64	2.09E+17	0.	256.79	0.	2.22E+17
6.2986	245.52	3.95E+17	0.	246.22	0.	4.19E+17
7.6233	228.57	8.7E+17	0.	237.06	0.	6.14E+17
11.8875	225.73	1.53E+18	0.	230.18	0.	9.23E+17
16.0428	222.70	2.03E+18	0.	232.13	0.	1.33E+18
21.7975	218.62	2.85E+18	0.	231.44	0.	1.59E+18
30.7130	217.65	3.81E+18	0.	227.25	0.	1.05E+18
40.0000	215.15	4.5E+18	0.	224.60	0.	2.15E+18
50.0000	211.15	4.93E+18	0.	227.23	0.	2.53E+18
70.0000	201.15	5.43E+18	0.	224.55	0.	2.95E+18
100.0000	200.75	5.65E+18	0.	225.71	0.	3.22E+18
150.0000	203.75	5.81E+18	0.	223.92	0.	3.8E+18
175.0000	215.25	5.85E+18	0.	218.14	0.	4.25E+18
200.0000	219.75	5.91E+18	0.	214.59	0.	4.62E+18
250.0000	224.15	5.94E+18	0.	210.87	0.	4.9E+18
300.0000	234.15	6.05E+18	0.	207.74	0.	5.20E+18
400.0000	251.75	6.15E+18	0.	198.60	0.	5.43E+18
500.0000	262.75	6.2E+18	0.	191.57	0.	5.5E+18
600.0000	271.65	6.27E+18	0.	189.42	0.	5.6E+18
700.0000	275.75	6.3E+18	0.	195.68	0.	5.71E+18
800.0000	277.75	6.4E+18	0.	202.51	0.	5.77E+18
900.0000	279.25	6.4E+18	0.	209.75	0.	5.83E+18
1000.0000	283.25	6.47E+18	0.	217.73	0.	5.89E+18
1200.0000	285.55	6.51E+18	0.	220.53	0.	5.9E+18
1400.0000	287.25	6.5E+18	0.	234.65	0.	5.93E+18
1600.0000	290.75	6.57E+18	0.	240.72	0.	6.04E+18
1800.0000	294.75	6.61E+18	0.	249.21	2.09E+20	6.09E+18
2000.0000	297.75	6.61E+18	0.	258.64	8.28E+20	6.1E+18
				263.96	1.87E+21	6.13E+18
				269.78	3.41E+21	6.2E+18
				276.03	5.72E+21	6.29E+18
				281.07	9.01E+21	6.3E+18
				285.14	1.38E+22	6.4E+18
				287.47	3.26E+22	6.43E+18
				291.82	7.31E+22	6.5E+18
				302.64	1.28E+23	6.61E+18

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Table 1. (Cont)

KWAJALEIN
4/01/75
8531

PRESSURE (MM)	TEMPERATURE (K)	H ₂ O MOLECULES/ CM SQ	OT MOLECULES/ CM SQ
0.0000	249.94	0.	8.913E+15
.1124	242.67	0.	2.270E+15
.2176	254.17	0.	5.832E+15
.6664	267.78	0.	2.133E+16
.8625	262.77	0.	2.735E+16
1.9453	271.75	0.	1.133E+17
3.1752	257.59	0.	2.716E+17
6.1261	238.71	0.	6.281E+17
15.1150	270.44	0.	1.975E+18
28.2657	218.70	0.	3.634E+18
51.7900	209.18	0.	5.039E+18
75.7300	190.71	0.	5.512E+18
103.3500	191.17	0.	5.678E+18
128.4800	197.92	0.	5.791E+18
200.8000	221.18	0.	5.916E+18
240.5100	235.12	0.	5.931E+18
300.1100	244.21	2.117E+20	6.077E+18
390.6400	255.16	1.035E+21	6.135E+18
463.0700	265.51	2.687E+21	6.214E+18
542.2700	273.11	5.559E+21	6.261E+18
613.1300	280.12	8.909E+21	6.337E+18
691.7700	282.02	1.345E+22	6.707E+18
756.7500	287.22	1.837E+22	6.773E+18
802.4900	295.75	2.672E+22	6.778E+18
851.0600	290.61	4.226E+22	6.512E+18
876.1800	290.77	5.154E+22	6.570E+18
901.9900	291.68	6.157E+22	6.583E+18
928.4300	293.14	7.329E+22	6.595E+18
955.4200	295.69	8.644E+22	6.582E+18
1010.6000	302.29	1.151E+23	6.617E+18

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Table 2a. Filter Functions for the Block 5C 8531 Satellite

OMSP FILTER NO. 4511
668 WAVELENGTH CHANNEL
FREQUENCY STEP IS VARIABLE

FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION
659.00	.0745	663.60	.0907	671.60	.1131	679.60	.0938
659.50	.0755	664.10	.0917	672.10	.1141	680.10	.0948
660.00	.0765	664.60	.0927	672.60	.1151	680.60	.0958
660.50	.0775	665.10	.0937	673.10	.1161	681.10	.0968
661.00	.0785	665.60	.0947	673.60	.1171	681.60	.0978
661.50	.0795	666.10	.0957	674.10	.1181	682.10	.0988
662.00	.0805	666.60	.0967	674.60	.1191	682.60	.0998
662.50	.0815	667.10	.0977	675.10	.1201	683.10	.1008
663.00	.0825	667.60	.0987	675.60	.1211	683.60	.1018
663.50	.0835	668.10	.0997	676.10	.1221	684.10	.1028
664.00	.0845	668.60	.1007	676.60	.1231	684.60	.1038
664.50	.0855	669.10	.1017	677.10	.1241	685.10	.1048
665.00	.0865	669.60	.1027	677.60	.1251	685.60	.1058
665.50	.0875	670.10	.1037	678.10	.1261	686.10	.1068
666.00	.0885	670.60	.1047	678.60	.1271	686.60	.1078
666.50	.0895	671.10	.1057	679.10	.1281	687.10	.1088
667.00	.0905	671.60	.1067	679.60	.1291	687.60	.1098
667.50	.0915	672.10	.1077	680.10	.1301	688.10	.1108
668.00	.0925	672.60	.1087	680.60	.1311	688.60	.1118
668.50	.0935	673.10	.1097	681.10	.1321	689.10	.1128
669.00	.0945	673.60	.1107	681.60	.1331	689.60	.1138
669.50	.0955	674.10	.1117	682.10	.1341	690.10	.1148
670.00	.0965	674.60	.1127	682.60	.1351	690.60	.1158
670.50	.0975	675.10	.1137	683.10	.1361	691.10	.1168
671.00	.0985	675.60	.1147	683.60	.1371	691.60	.1178
671.50	.0995	676.10	.1157	684.10	.1381	692.10	.1188
672.00	.1005	676.60	.1167	684.60	.1391	692.60	.1198
672.50	.1015	677.10	.1177	685.10	.1401	693.10	.1208
673.00	.1025	677.60	.1187	685.60	.1411	693.60	.1218
673.50	.1035	678.10	.1197	686.10	.1421	694.10	.1228
674.00	.1045	678.60	.1207	686.60	.1431	694.60	.1238
674.50	.1055	679.10	.1217	687.10	.1441	695.10	.1248
675.00	.1065	679.60	.1227	687.60	.1451	695.60	.1258
675.50	.1075	680.10	.1237	688.10	.1461	696.10	.1268
676.00	.1085	680.60	.1247	688.60	.1471	696.60	.1278
676.50	.1095	681.10	.1257	689.10	.1481	697.10	.1288
677.00	.1105	681.60	.1267	689.60	.1491	697.60	.1298
677.50	.1115	682.10	.1277	690.10	.1501	698.10	.1308
678.00	.1125	682.60	.1287	690.60	.1511	698.60	.1318
678.50	.1135	683.10	.1297	691.10	.1521	699.10	.1328
679.00	.1145	683.60	.1307	691.60	.1531	699.60	.1338
679.50	.1155	684.10	.1317	692.10	.1541	700.10	.1348
680.00	.1165	684.60	.1327	692.60	.1551	700.60	.1358
680.50	.1175	685.10	.1337	693.10	.1561	701.10	.1368
681.00	.1185	685.60	.1347	693.60	.1571	701.60	.1378
681.50	.1195	686.10	.1357	694.10	.1581	702.10	.1388
682.00	.1205	686.60	.1367	694.60	.1591	702.60	.1398
682.50	.1215	687.10	.1377	695.10	.1601	703.10	.1408
683.00	.1225	687.60	.1387	695.60	.1611	703.60	.1418
683.50	.1235	688.10	.1397	696.10	.1621	704.10	.1428
684.00	.1245	688.60	.1407	696.60	.1631	704.60	.1438
684.50	.1255	689.10	.1417	697.10	.1641	705.10	.1448
685.00	.1265	689.60	.1427	697.60	.1651	705.60	.1458
685.50	.1275	690.10	.1437	698.10	.1661	706.10	.1468
686.00	.1285	690.60	.1447	698.60	.1671	706.60	.1478
686.50	.1295	691.10	.1457	699.10	.1681	707.10	.1488
687.00	.1305	691.60	.1467	699.60	.1691	707.60	.1498
687.50	.1315	692.10	.1477	700.10	.1701	708.10	.1508
688.00	.1325	692.60	.1487	700.60	.1711	708.60	.1518
688.50	.1335	693.10	.1497	701.10	.1721	709.10	.1528
689.00	.1345	693.60	.1507	701.60	.1731	709.60	.1538
689.50	.1355	694.10	.1517	702.10	.1741	710.10	.1548
690.00	.1365	694.60	.1527	702.60	.1751	710.60	.1558
690.50	.1375	695.10	.1537	703.10	.1761	711.10	.1568
691.00	.1385	695.60	.1547	703.60	.1771	711.60	.1578
691.50	.1395	696.10	.1557	704.10	.1781	712.10	.1588
692.00	.1405	696.60	.1567	704.60	.1791	712.60	.1598
692.50	.1415	697.10	.1577	705.10	.1801	713.10	.1608
693.00	.1425	697.60	.1587	705.60	.1811	713.60	.1618
693.50	.1435	698.10	.1597	706.10	.1821	714.10	.1628
694.00	.1445	698.60	.1607	706.60	.1831	714.60	.1638
694.50	.1455	699.10	.1617	707.10	.1841	715.10	.1648
695.00	.1465	699.60	.1627	707.60	.1851	715.60	.1658
695.50	.1475	700.10	.1637	708.10	.1861	716.10	.1668
696.00	.1485	700.60	.1647	708.60	.1871	716.60	.1678
696.50	.1495	701.10	.1657	709.10	.1881	717.10	.1688
697.00	.1505	701.60	.1667	709.60	.1891	717.60	.1698
697.50	.1515	702.10	.1677	710.10	.1901	718.10	.1708
698.00	.1525	702.60	.1687	710.60	.1911	718.60	.1718
698.50	.1535	703.10	.1697	711.10	.1921	719.10	.1728
699.00	.1545	703.60	.1707	711.60	.1931	719.60	.1738
699.50	.1555	704.10	.1717	712.10	.1941	720.10	.1748
700.00	.1565	704.60	.1727	712.60	.1951	720.60	.1758
700.50	.1575	705.10	.1737	713.10	.1961	721.10	.1768
701.00	.1585	705.60	.1747	713.60	.1971	721.60	.1778
701.50	.1595	706.10	.1757	714.10	.1981	722.10	.1788
702.00	.1605	706.60	.1767	714.60	.1991	722.60	.1798
702.50	.1615	707.10	.1777	715.10	.2001	723.10	.1808
703.00	.1625	707.60	.1787	715.60	.2011	723.60	.1818
703.50	.1635	708.10	.1797	716.10	.2021	724.10	.1828
704.00	.1645	708.60	.1807	716.60	.2031	724.60	.1838
704.50	.1655	709.10	.1817	717.10	.2041	725.10	.1848
705.00	.1665	709.60	.1827	717.60	.2051	725.60	.1858
705.50	.1675	710.10	.1837	718.10	.2061	726.10	.1868
706.00	.1685	710.60	.1847	718.60	.2071	726.60	.1878
706.50	.1695	711.10	.1857	719.10	.2081	727.10	.1888
707.00	.1705	711.60	.1867	719.60	.2091	727.60	.1898
707.50	.1715	712.10	.1877	720.10	.2101	728.10	.1908
708.00	.1725	712.60	.1887	720.60	.2111	728.60	.1918
708.50	.1735	713.10	.1897	721.10	.2121	729.10	.1928
709.00	.1745	713.60	.1907	721.60	.2131	729.60	.1938
709.50	.1755	714.10	.1917	722.10	.2141	730.10	.1948
710.00	.1765	714.60	.1927	722.60	.2151	730.60	.1958
710.50	.1775	715.10	.1937	723.10	.2161	731.10	.1968
711.00	.1785	715.60	.1947	723.60	.2171	731.60	.1978
711.50	.1795	716.10	.1957	724.10	.2181	732.10	.1988
712.00	.1805	716.60	.1967	724.60	.2191	732.60	.1998
712.50	.1815	717.10	.1977	725.10	.2201	733.10	.2008
713.00	.1825	717.60	.1987	725.60	.2211	733.60	.2018
713.50	.1835	718.10	.1997	726.10	.2221	734.10	.2028
714.00	.1845	718.60	.2007	726.60	.2231	734.60	.2038
714.50	.1855	719.10	.2017	727.10	.2241	735.10	.2048
715.00	.1865	719.60	.2027	727.60	.2251	735.60	.2058
715.50	.1875	720.10	.2037	728.10	.2261	736.10	.2068
716.00	.1885	720.60	.2047	728.60	.2271	736.60	.2078
716.50	.1895	721.10	.2057	729.10	.2281	737.10	.2088
717.00	.1905	721.60	.2067	729.60	.2291	737.60	.2098
717.50	.1915	722.10	.2077	730.10	.2301	738.10	.2108
718.00	.1925	722.60	.2087	730.60	.2311	738.60	.2118
718.50	.1935	723.10	.2097	731.10	.2321	739.10	.2128
719.00	.1945	723.60	.2107	731.60	.2331	739.60	.2138
719.50	.1955	724.10	.2117	732.10	.2341	740.10	.2148
720.00	.1965	724.60	.2127	732.60	.2351	740.60	.2158
720.50	.1975	725.10	.2137	733.10	.2361	741.10	.2168
721.00	.1985	725.60	.2147	733.60	.2371	741.60	.2178
721.50	.1995	726.10	.2157	734.10	.2381	742.10	.2188
722.00	.2005	726.60	.2167	734.60	.2391	742.60	.2198
722.50	.2015	727.10	.2177	735.10	.2401	743.10	.2208
723.00	.2025	727.60	.2187	735.60	.2411	743.60	.2218
723.50	.2035	728.10	.2197	736.10	.2421	744.10	.2228
724.00	.2045	728.60	.2207	736.60	.2431	744.60	.2238
724.50	.2055	729.10	.2217	737.10	.2441	745.10	.2248
725.00	.2065	729.60	.2227	737.60	.2451	745.60	.2258
725.50	.2075	730.10	.2237	738.10	.2461	746.10	.2268
726.00	.2085	730.60	.2247	738.60	.2471	746.60	.2278
726.50	.2095	731.10	.2257	739.10	.2481	747.10	.2288
727.00	.2105	731.60	.2267	739.60	.2491	747.60	.2298
727.50	.2115	732.10	.2277	740.10	.2501	748.10	.2308
728.00	.2125	732.60	.2287	740.60	.2511	748.60	.2318
728.50	.2135	733.10	.2297	741.10	.2521	749.10	.2328
729.00	.2145	733.60	.2307	741.60	.2531	749.60	.2338
729.50	.2155	734.10	.2317	742.10	.2541	750.10	.2348
730.00	.2165	734.60	.2327				

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Table 2a. (Cont)

DMSP FILTER NO. 8531 695 WAVE NUMBER CHANNEL FREQUENCY STEP = .5 WAVE NUMBERS				DMSP FILTER NO. 8531 676 WAVE NUMBER CHANNEL FREQUENCY STEP = .5 WAVE NUMBERS			
FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION
661.0	0.0000	676.50	.9890	682.00	.9890	699.50	.6010
661.5	0.0000	677.00	.9740	682.50	.9740	700.00	.5950
662.0	0.0000	677.50	.9590	683.00	.9590	700.50	.4900
662.5	.0000	678.00	.9440	683.50	.9440	701.00	.3900
663.0	.0000	678.50	.9290	684.00	.9290	701.50	.2900
663.5	.0000	679.00	.9140	684.50	.9140	702.00	.1900
664.0	.0000	679.50	.8990	685.00	.8990	702.50	.0900
664.5	.0000	680.00	.8840	685.50	.8840	703.00	.0400
665.0	.0000	680.50	.8690	686.00	.8690	703.50	.0200
665.5	.0000	681.00	.8540	686.50	.8540	704.00	.0100
666.0	.0000	681.50	.8390	687.00	.8390	704.50	.0000
666.5	.0000	682.00	.8240	687.50	.8240	705.00	.0000
667.0	.0000	682.50	.8090	688.00	.8090	705.50	.0000
667.5	.0000	683.00	.7940	688.50	.7940	706.00	.0000
668.0	.0000	683.50	.7790	689.00	.7790	706.50	.0000
668.5	.0000	684.00	.7640	689.50	.7640	707.00	.0000
669.0	.0000	684.50	.7490	690.00	.7490	707.50	.0000
669.5	.0000	685.00	.7340	690.50	.7340	708.00	.0000
670.0	.0000	685.50	.7190	691.00	.7190	708.50	.0000
670.5	.0000	686.00	.7040	691.50	.7040	709.00	.0000
671.0	.0000	686.50	.6890	692.00	.6890	709.50	.0000
671.5	.0000	687.00	.6740	692.50	.6740	710.00	.0000
672.0	.0000	687.50	.6590	693.00	.6590		
672.5	.0000	688.00	.6440	693.50	.6440		
673.0	.0000	688.50	.6290	694.00	.6290		
673.5	.0000	689.00	.6140	694.50	.6140		
674.0	.0000	689.50	.5990	695.00	.5990		
674.5	.0000	690.00	.5840	695.50	.5840		
675.0	.0000	690.50	.5690	696.00	.5690		
675.5	.0000	691.00	.5540	696.50	.5540		
676.0	.0000	691.50	.5390	697.00	.5390		
676.5	.0000	692.00	.5240	697.50	.5240		
677.0	.0000	692.50	.5090	698.00	.5090		
677.5	.0000	693.00	.4940	698.50	.4940		
678.0	.0000	693.50	.4790	699.00	.4790		
678.5	.0000	694.00	.4640	699.50	.4640		
679.0	.0000	694.50	.4490	700.00	.4490		
679.5	.0000	695.00	.4340	700.50	.4340		
680.0	.0000	695.50	.4190	701.00	.4190		
680.5	.0000	696.00	.4040	701.50	.4040		
681.0	.0000	696.50	.3890	702.00	.3890		
681.5	.0000	697.00	.3740	702.50	.3740		
682.0	.0000	697.50	.3590	703.00	.3590		
682.5	.0000	698.00	.3440	703.50	.3440		
683.0	.0000	698.50	.3290	704.00	.3290		
683.5	.0000	699.00	.3140	704.50	.3140		
684.0	.0000	699.50	.2990	705.00	.2990		
684.5	.0000	700.00	.2840	705.50	.2840		
685.0	.0000	700.50	.2690	706.00	.2690		
685.5	.0000	701.00	.2540	706.50	.2540		
686.0	.0000	701.50	.2390	707.00	.2390		
686.5	.0000	702.00	.2240	707.50	.2240		
687.0	.0000	702.50	.2090	708.00	.2090		
687.5	.0000	703.00	.1940	708.50	.1940		
688.0	.0000	703.50	.1790	709.00	.1790		
688.5	.0000	704.00	.1640	709.50	.1640		
689.0	.0000	704.50	.1490	710.00	.1490		
689.5	.0000	705.00	.1340				
690.0	.0000	705.50	.1190				
690.5	.0000	706.00	.1040				
691.0	.0000	706.50	.0890				
691.5	.0000	707.00	.0740				
692.0	.0000	707.50	.0590				
692.5	.0000	708.00	.0440				
693.0	.0000	708.50	.0290				
693.5	.0000	709.00	.0140				
694.0	.0000	709.50	.0000				
694.5	.0000	710.00	.0000				
695.0	.0000						
695.5	.0000						
696.0	.0000						
696.5	.0000						
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708.5	.0000						
709.0	.0000						
709.5	.0000						
710.0	.0000						

BEST AVAILABLE COPY

Table 2a. (Cont)

DMSP FILTER NO. 8531 727 WAVELENGTH CHANNEL FREQUENCY STEP = .5 WAVENUMBERS				DMSP FILTER NO. 8531 727 WAVELENGTH CHANNEL FREQUENCY STEP = .5 WAVENUMBERS			
FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION
691.5	0.010	708.50	.5720	713.00	.0010	731.50	.3350
691.50	.010	709.00	.5680	713.50	.0020	731.00	.2710
692.0	.020	709.50	.5430	714.00	.0030	731.50	.2030
692.5	.030	710.00	.530	714.50	.0040	732.00	.1490
693.0	.040	710.50	.5220	715.00	.0050	732.50	.1090
693.5	.050	711.00	.5010	715.50	.0080	733.00	.0770
694.0	.060	711.50	.4730	716.00	.0110	733.50	.0550
694.5	.070	712.00	.4430	716.50	.0140	734.00	.0410
695.0	.080	712.50	.4130	717.00	.0170	734.50	.0290
695.5	.090	713.00	.3830	717.50	.0200	735.00	.0210
696.0	.100	713.50	.3530	718.00	.0230	735.50	.0160
696.5	.110	714.00	.3230	718.50	.0260	736.00	.0120
697.0	.120	714.50	.2930	719.00	.0290	736.50	.0090
697.5	.130	715.00	.2630	719.50	.0320	737.00	.0070
698.0	.140	715.50	.2330	720.00	.0350	737.50	.0050
698.5	.150	716.00	.2030	720.50	.0380	738.00	.0040
699.0	.160	716.50	.1730	721.00	.0410	738.50	.0030
699.5	.170	717.00	.1430	721.50	.0440	739.00	.0010
700.0	.180	717.50	.1130	722.00	.0470	739.50	0.0000
700.5	.190	718.00	.0830	722.50	.0500	740.00	0.0000
701.0	.200	718.50	.0530	723.00	.0530		
701.5	.210	719.00	.0230	723.50	.0560		
702.0	.220	719.50	.010	724.00	.0590		
702.5	.230	720.00	.000	724.50	.0620		
703.0	.240	720.50	.000	725.00	.0650		
703.5	.250	721.00	.000	725.50	.0680		
704.0	.260	721.50	.000	726.00	.0710		
704.5	.270	722.00	.000	726.50	.0740		
705.0	.280	722.50	.000	727.00	.0770		
705.5	.290	723.00	.000	727.50	.0800		
706.0	.300	723.50	.000	728.00	.0830		
706.5	.310	724.00	.000	728.50	.0860		
707.0	.320	724.50	.000	729.00	.0890		
707.5	.330	725.00	.000	729.50	.0920		
708.0	.340	725.50	.000	730.00	.0950		
708.5	.350	726.00	.000				
709.0	.360	726.50	.000				
709.5	.370	727.00	.000				
710.0	.380	727.50	.000				
710.5	.390	728.00	.000				
711.0	.400	728.50	.000				
711.5	.410	729.00	.000				
712.0	.420	729.50	.000				
712.5	.430	730.00	.000				
713.0	.440	730.50	.000				
713.5	.450	731.00	.000				
714.0	.460	731.50	.000				
714.5	.470	732.00	.000				
715.0	.480	732.50	.000				
715.5	.490	733.00	.000				
716.0	.500	733.50	.000				
716.5	.510	734.00	.000				
717.0	.520	734.50	.000				
717.5	.530	735.00	.000				
718.0	.540	735.50	.000				
718.5	.550	736.00	.000				
719.0	.560	736.50	.000				
719.5	.570	737.00	.000				
720.0	.580	737.50	.000				
720.5	.590	738.00	.000				
721.0	.600	738.50	.000				
721.5	.610	739.00	.000				
722.0	.620	739.50	.000				
722.5	.630	740.00	.000				
723.0	.640	740.50	.000				
723.5	.650	741.00	.000				
724.0	.660	741.50	.000				
724.5	.670	742.00	.000				
725.0	.680	742.50	.000				
725.5	.690	743.00	.000				
726.0	.700	743.50	.000				
726.5	.710	744.00	.000				
727.0	.720	744.50	.000				
727.5	.730	745.00	.000				
728.0	.740	745.50	.000				
728.5	.750	746.00	.000				
729.0	.760	746.50	.000				
729.5	.770	747.00	.000				
730.0	.780	747.50	.000				
730.5	.790	748.00	.000				
731.0	.800	748.50	.000				
731.5	.810	749.00	.000				
732.0	.820	749.50	.000				
732.5	.830	750.00	.000				
733.0	.840	750.50	.000				
733.5	.850	751.00	.000				
734.0	.860	751.50	.000				
734.5	.870	752.00	.000				
735.0	.880	752.50	.000				
735.5	.890	753.00	.000				
736.0	.900	753.50	.000				
736.5	.910	754.00	.000				
737.0	.920	754.50	.000				
737.5	.930	755.00	.000				
738.0	.940	755.50	.000				
738.5	.950	756.00	.000				
739.0	.960	756.50	.000				
739.5	.970	757.00	.000				
740.0	.980	757.50	.000				
740.5	.990	758.00	.000				
741.0	1.000	758.50	.000				

BEST AVAILABLE COPY

Table 2a. (Cont)

DWSP FILTER NO. 4531
7-6 WAVENUMBER CHANNEL
FREQUENCY STEP: .5 WAVENUMBERS

FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION
732.00	.0010	746.50	.5710
732.50	.0020	747.00	.5830
733.00	.0030	747.50	.5910
733.50	.0040	748.00	.5930
734.00	.0060	748.50	.6030
734.50	.0070	749.00	.5970
735.00	.0080	749.50	.6010
735.50	.0100	750.00	.6050
736.00	.0110	750.50	.6030
736.50	.0240	751.00	.6230
737.00	.0370	751.50	.6170
737.50	.0420	752.00	.6270
738.00	.0530	752.50	.6230
738.50	.0870	753.00	.6330
739.00	.1200	753.50	.6230
739.50	.1720	754.00	.6130
740.00	.2210	754.50	.6130
740.50	.3130	755.00	.6160
741.00	.3960	755.50	.6170
741.50	.4760	756.00	.6330
742.00	.5540	756.50	.6030
742.50	.6120	757.00	.6030
743.00	.6450	757.50	.6030
743.50	.6660	758.00	.6030
744.00	.6810	758.50	.6030
744.50	.6860	759.00	.6030
745.00	.6860	759.50	.6030
745.50	.6860	760.00	.6030
746.00	.6760	760.50	.6030
746.50	.6660	761.00	.6030
747.00	.6540		
747.50	.6240		
748.00	.6010		
748.50	.5910		
749.00	.5730		
749.50	.5570		

Table 2b. Filter Functions for the Block 5C 9532 Satellite

OMSP FILTER NO. 9532
568 MAV NUMBER CHANNEL
FREQUENCY STEP IS VARIABLE

FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION
650.00	.026	666.00	.267	674.00	.150	750.00	.006
655.00	.050	666.20	.230	674.20	.172	755.00	.006
660.00	.058	666.40	.251	674.40	.172	760.00	.005
665.00	.058	666.60	.263	674.60	.172	765.00	.004
668.00	.082	666.80	.262	674.80	.172	770.00	.003
670.00	.010	667.00	.251	675.00	.150	775.00	.002
675.00	.010	667.20	.230	675.20	.130	780.00	.002
680.00	.012	667.40	.212	675.40	.130	785.00	.002
685.00	.014	667.60	.201	675.60	.130	790.00	.003
690.00	.016	667.80	.189	675.80	.130	795.00	.003
695.00	.018	668.00	.180	676.00	.150	800.00	.002
700.00	.020	668.20	.162	676.20	.130		
705.00	.021	668.40	.143	676.40	.130		
710.00	.023	668.60	.124	676.60	.130		
715.00	.025	668.80	.105	676.80	.110		
720.00	.026	669.00	.087	677.00	.150		
725.00	.028	669.20	.068	677.20	.130		
730.00	.030	669.40	.050	677.40	.130		
735.00	.032	669.60	.032	677.60	.130		
740.00	.035	669.80	.015	677.80	.110		
745.00	.039	670.00	.000	678.00	.150		
750.00	.040	670.20	.020	678.20	.130		
755.00	.045	670.40	.038	678.40	.130		
760.00	.050	670.60	.051	678.60	.130		
765.00	.055	670.80	.069	678.80	.130		
770.00	.060	671.00	.086	679.00	.130		
775.00	.066	671.20	.107	679.20	.130		
780.00	.070	671.40	.130	679.40	.130		
785.00	.075	671.60	.157	679.60	.130		
790.00	.080	671.80	.184	679.80	.130		
795.00	.085	672.00	.213	680.00	.130		
800.00	.090	672.20	.244	680.20	.130		
805.00	.095	672.40	.276	680.40	.130		
810.00	.100	672.60	.309	680.60	.130		
815.00	.105	672.80	.343	680.80	.130		
820.00	.110	673.00	.378	681.00	.130		
825.00	.115	673.20	.414	681.20	.130		
830.00	.120	673.40	.451	681.40	.130		
835.00	.125	673.60	.489	681.60	.130		
840.00	.130	673.80	.528	681.80	.130		
845.00	.135	674.00	.568	682.00	.130		
850.00	.140	674.20	.609	682.20	.130		
855.00	.145	674.40	.651	682.40	.130		
860.00	.150	674.60	.694	682.60	.130		
865.00	.155	674.80	.738	682.80	.130		
870.00	.160	675.00	.783	683.00	.130		
875.00	.165	675.20	.829	683.20	.130		
880.00	.170	675.40	.876	683.40	.130		
885.00	.175	675.60	.924	683.60	.130		
890.00	.180	675.80	.973	683.80	.130		
895.00	.185	676.00	.023	684.00	.130		
900.00	.190	676.20	.074	684.20	.130		
905.00	.195	676.40	.126	684.40	.130		
910.00	.200	676.60	.179	684.60	.130		
915.00	.205	676.80	.233	684.80	.130		
920.00	.210	677.00	.288	685.00	.130		
925.00	.215	677.20	.344	685.20	.130		
930.00	.220	677.40	.401	685.40	.130		
935.00	.225	677.60	.459	685.60	.130		
940.00	.230	677.80	.518	685.80	.130		
945.00	.235	678.00	.578	686.00	.130		
950.00	.240	678.20	.639	686.20	.130		
955.00	.245	678.40	.701	686.40	.130		
960.00	.250	678.60	.764	686.60	.130		
965.00	.255	678.80	.828	686.80	.130		
970.00	.260	679.00	.893	687.00	.130		
975.00	.265	679.20	.959	687.20	.130		
980.00	.270	679.40	.027	687.40	.130		
985.00	.275	679.60	.086	687.60	.130		
990.00	.280	679.80	.147	687.80	.130		
995.00	.285	680.00	.209	688.00	.130		
1000.00	.290	680.20	.273	688.20	.130		
1005.00	.295	680.40	.338	688.40	.130		
1010.00	.300	680.60	.404	688.60	.130		
1015.00	.305	680.80	.471	688.80	.130		
1020.00	.310	681.00	.539	689.00	.130		
1025.00	.315	681.20	.608	689.20	.130		
1030.00	.320	681.40	.678	689.40	.130		
1035.00	.325	681.60	.749	689.60	.130		
1040.00	.330	681.80	.821	689.80	.130		
1045.00	.335	682.00	.894	690.00	.130		
1050.00	.340	682.20	.968	690.20	.130		
1055.00	.345	682.40	.043	690.40	.130		
1060.00	.350	682.60	.119	690.60	.130		
1065.00	.355	682.80	.196	690.80	.130		
1070.00	.360	683.00	.274	691.00	.130		
1075.00	.365	683.20	.353	691.20	.130		
1080.00	.370	683.40	.433	691.40	.130		
1085.00	.375	683.60	.514	691.60	.130		
1090.00	.380	683.80	.596	691.80	.130		
1095.00	.385	684.00	.679	692.00	.130		
1100.00	.390	684.20	.763	692.20	.130		
1105.00	.395	684.40	.848	692.40	.130		
1110.00	.400	684.60	.934	692.60	.130		
1115.00	.405	684.80	.021	692.80	.130		
1120.00	.410	685.00	.109	693.00	.130		
1125.00	.415	685.20	.198	693.20	.130		
1130.00	.420	685.40	.288	693.40	.130		
1135.00	.425	685.60	.379	693.60	.130		
1140.00	.430	685.80	.471	693.80	.130		
1145.00	.435	686.00	.564	694.00	.130		
1150.00	.440	686.20	.658	694.20	.130		
1155.00	.445	686.40	.753	694.40	.130		
1160.00	.450	686.60	.849	694.60	.130		
1165.00	.455	686.80	.946	694.80	.130		
1170.00	.460	687.00	.044	695.00	.130		
1175.00	.465	687.20	.143	695.20	.130		
1180.00	.470	687.40	.243	695.40	.130		
1185.00	.475	687.60	.344	695.60	.130		
1190.00	.480	687.80	.446	695.80	.130		
1195.00	.485	688.00	.549	696.00	.130		
1200.00	.490	688.20	.653	696.20	.130		
1205.00	.495	688.40	.758	696.40	.130		
1210.00	.500	688.60	.864	696.60	.130		
1215.00	.505	688.80	.971	696.80	.130		
1220.00	.510	689.00	.079	697.00	.130		
1225.00	.515	689.20	.188	697.20	.130		
1230.00	.520	689.40	.298	697.40	.130		
1235.00	.525	689.60	.409	697.60	.130		
1240.00	.530	689.80	.521	697.80	.130		
1245.00	.535	690.00	.634	698.00	.130		
1250.00	.540	690.20	.748	698.20	.130		
1255.00	.545	690.40	.863	698.40	.130		
1260.00	.550	690.60	.979	698.60	.130		
1265.00	.555	690.80	.096	698.80	.130		
1270.00	.560	691.00	.214	699.00	.130		
1275.00	.565	691.20	.333	699.20	.130		
1280.00	.570	691.40	.453	699.40	.130		
1285.00	.575	691.60	.574	699.60	.130		
1290.00	.580	691.80	.696	699.80	.130		
1295.00	.585	692.00	.819	700.00	.130		
1300.00	.590	692.20	.943				
1305.00	.595	692.40	.068				
1310.00	.600	692.60	.193				
1315.00	.605	692.80	.319				
1320.00	.610	693.00	.446				
1325.00	.615	693.20	.574				
1330.00	.620	693.40	.703				
1335.00	.625	693.60	.833				
1340.00	.630	693.80	.964				
1345.00	.635	694.00	.096				
1350.00	.640	694.20	.229				
1355.00	.645	694.40	.363				
1360.00	.650	694.60	.498				
1365.00	.655	694.80	.634				
1370.00	.660	695.00	.771				
1375.00	.665	695.20	.909				
1380.00	.670	695.40	.048				
1385.00	.675	695.60	.188				
1390.00	.680	695.80	.329				
1395.00	.685	696.00	.471				
1400.00	.690	696.20	.614				
1405.00	.695	696.40	.758				
1410.00	.700	696.60	.903				
1415.00	.705	696.80	.049				
1420.00	.710	697.00	.196				
1425.00	.715	697.20	.344				
1430.00	.720	697.40	.493				
1435.00	.725	697.60	.643				
1440.00	.730	697.80	.794				
1445.00	.735	698.00	.946				
1450.00	.740	698.20	.099				
1455.00	.745	698.40	.253				
1460.00	.750	698.60	.408				
1465.00	.755	698.80	.564				
1470.00	.760	699.00	.721				
1475.00	.765	699.20	.879				
1480.00	.770	699.40	.038				
1485.00	.775	699.60	.198				
1490.00	.780	699.80	.359				
1495.00	.785	700.00	.521				
1500.00	.790		.684				

BEST AVAILABLE COPY

BEST AVAILABLE COPY

Table 2b. (Cont)

DMSP FILTER NO. 9532 676 WAVELENGTH CHANNEL FREQUENCY STEP = .5 WAVENUMBERS				DMSP FILTER NO. 9532 695 WAVELENGTH CHANNEL FREQUENCY STEP = .5 WAVENUMBERS			
FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION
674.0	0.0000	681.50	.5023	682.00	0.0000	699.50	.4620
674.5	.0010	682.00	.7760	682.50	.0010	700.00	.4330
675.0	.0010	682.50	.4350	683.00	.0020	700.50	.3050
675.5	.0020	683.00	.3740	683.50	.0020	701.00	.2330
676.0	.0030	683.50	.3350	684.00	.0050	701.50	.1600
676.5	.0040	684.00	.2273	684.50	.0050	702.00	.0930
677.0	.0060	684.50	.1630	685.00	.0040	702.50	.0530
677.5	.0090	685.00	.1230	685.50	.0120	703.00	.0420
678.0	.0110	685.50	.0930	686.00	.0120	703.50	.0290
678.5	.0270	686.00	.0590	686.50	.0120	704.00	.0170
679.0	.0380	686.50	.0430	687.00	.0370	704.50	.0120
679.5	.0520	687.00	.0320	687.50	.0340	705.00	.0380
680.0	.0760	687.50	.0220	688.00	.0780	705.50	.0050
680.5	.1000	688.00	.0190	688.50	.1760	706.00	.0350
681.0	.1310	688.50	.0130	689.00	.1160	706.50	.0340
681.5	.1750	689.00	.0070	689.50	.2220	707.00	.0030
682.0	.2240	689.50	.0030	690.00	.3170	707.50	.0020
682.5	.2620	690.00	.0030	690.50	.3760	708.00	.0010
683.0	.3530	690.50	.0030	691.00	.4420	708.50	.0010
683.5	.3970	691.00	.0030	691.50	.5070	709.00	.0000
684.0	.4320	691.50	.0010	692.00	.5730		
684.5	.4650	692.00	.0010	692.50	.5700		
685.0	.4900	692.50	.0010	693.00	.5700		
685.5	.5250	693.00	.0010	693.50	.5800		
686.0	.5600	693.50	.0010	694.00	.5960		
686.5	.5900	694.00	.0010	694.50	.6070		
687.0	.6200	694.50	.0010	695.00	.6000		
687.5	.6500	695.00	.0010	695.50	.5920		
688.0	.6750	695.50	.0010	696.00	.5810		
688.5	.7000	696.00	.0010	696.50	.5720		
689.0	.7250	696.50	.0010	697.00	.5620		
689.5	.7500	697.00	.0010	697.50	.5570		
690.0	.7750	697.50	.0010	698.00	.5560		
690.5	.8000	698.00	.0010	698.50	.5460		
691.0	.8250	698.50	.0010	699.00	.5360		
691.5	.8500	699.00	.0010	699.50	.5260		
692.0	.8750	699.50	.0010				
692.5	.9000						
693.0	.9250						
693.5	.9500						
694.0	.9750						
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764.5	.0000						
765.0	.0000						
765.5	.0000						
766.0	.0000						
766.5	.0000						
767.0	.0000						
767.5	.0000						
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769.0	.0000						
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770.0	.0000						
770.5	.0000						
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781.5	.0000						
782.0	.0000						
782.5	.0000						
783.0	.0000						
783.5	.0000						
784.0	.0000						
784.5	.0000						
785.0	.0000						
785.5	.0000						
786.0	.0000						
786.5	.0000						
787.0	.0000						
787.5	.0000						

BEST AVAILABLE COPY

Table 2b. (Cont)

OMSP FILTER NO. 9532 707 WAVELENGTH CHANNEL FREQUENCY STEP= .5 WAVENUMBERS				OMSP FILTER NO. 9532 727 WAVELENGTH CHANNEL FREQUENCY STEP= .5 WAVENUMBERS			
FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION
693.00	0.0000	710.50	.5330	710.00	0.0000	727.50	.5630
693.50	.0010	711.00	.5320	710.50	0.0000	728.00	.5650
694.00	.0010	711.50	.5310	711.00	.0010	728.50	.5100
694.50	.0020	712.00	.5290	711.50	.0010	729.00	.4910
695.00	.0030	712.50	.5280	712.00	.0020	729.50	.3710
695.50	.0040	713.00	.4890	712.50	.0030	730.00	.2750
696.00	.0050	713.50	.4250	713.00	.0040	730.50	.1920
696.50	.0060	714.00	.3100	713.50	.0060	731.00	.1330
697.00	.0070	714.50	.2350	714.00	.0060	731.50	.0990
697.50	.0100	715.00	.1930	714.50	.0110	732.00	.0620
698.00	.0120	715.50	.1350	715.00	.0110	732.50	.0420
698.50	.0170	716.00	.0710	715.50	.0200	733.00	.0310
699.00	.0240	716.50	.0320	716.00	.0250	733.50	.0210
699.50	.0330	717.00	.0310	716.50	.0380	734.00	.0150
700.00	.0440	717.50	.0230	717.00	.0570	734.50	.0120
700.50	.0640	718.00	.0170	717.50	.0730	735.00	.0100
701.00	.0920	718.50	.0120	718.00	.1100	735.50	.0090
701.50	.1240	719.00	.0090	718.50	.1560	736.00	.0090
702.00	.1730	719.50	.0070	719.00	.2150	736.50	.0040
702.50	.2340	720.00	.0040	719.50	.2900	737.00	.0030
703.00	.3170	720.50	.0030	720.00	.3640	737.50	.0020
703.50	.4200	721.00	.0020	720.50	.4300	738.00	.0010
704.00	.5460	721.50	.0010	721.00	.4900	738.50	0.0000
704.50	.6900	722.00	.0010	721.50	.5470	739.00	0.0000
705.00	.8530	722.50	.0000	722.00	.5940		
705.50	1.0400	723.00	0.0000	722.50	.6200		
706.00	1.2500			723.00	.6200		
706.50	1.4800			723.50	.6300		
707.00	1.7300			724.00	.6400		
707.50	2.0000			724.50	.6300		
708.00	2.2900			725.00	.6200		
708.50	2.6000			725.50	.6100		
709.00	2.9300			726.00	.6070		
709.50	3.2800			726.50	.5970		
710.00	3.6500			727.00	.5800		

BEST AVAILABLE COPY

Table 2b. (Cont)

DMSP FILTER NO. 9532
746 MÅV NUMBER CHANNEL
FREQUENCY STEP .5 MÅV NUMBERS

FREQUENCY	FILTER TRANSMISSION	FREQUENCY	FILTER TRANSMISSION
743.00	0.0000	750.50	.6120
743.50	.0010	751.00	.0340
744.00	.0020	751.50	.5890
744.50	.0040	752.00	.4750
745.00	.0070	752.50	.3230
745.50	.0060	753.00	.1940
746.00	.0040	753.50	.1130
746.50	.0110	754.00	.0690
747.00	.0140	754.50	.0470
747.50	.0180	755.00	.0330
748.00	.1260	755.50	.0230
748.50	.0360	756.00	.0150
749.00	.0620	756.50	.0120
749.50	.0790	757.00	.0090
750.00	.1050	757.50	.0050
740.50	.1720	758.00	.0040
741.00	.2650	758.50	.0030
741.50	.3600	759.00	.0020
742.00	.4470	759.50	.0010
742.50	.5760	760.00	1.0000
743.00	.6570		
743.50	.6920		
744.00	.7180		
744.50	.7240		
745.00	.7180		
745.50	.7010		
746.00	.6780		
746.50	.6480		
747.00	.6080		
747.50	.5700		
748.00	.5390		
748.50	.5260		
749.00	.5240		
749.50	.5380		
750.00	.5730		

Table 3. Computed Transmittances for the Atmospheres Described by Table 1 and the Filter Functions Defined in Table 2. Transmittances are for the total path from the indicated pressure level to space

PT. MUGU 2/17/75 8531							
PRESSURE (MB)	TEMPERATURE (K)	FREQUENCY					
		668	676	595	737	727	747
TRANSMITTANCE							
.3311	251.86	9.3387E-01	9.8641E-01	9.8293E-01	9.9833E-01	9.9996E-01	9.9918E-01
.4307	257.63	9.3127E-01	9.8665E-01	9.8210E-01	9.9863E-01	9.9993E-01	9.9911E-01
.5577	262.83	9.1949E-01	9.8516E-01	9.8113E-01	9.9843E-01	9.9987E-01	9.9733E-01
.7189	266.87	9.0698E-01	9.8340E-01	9.7961E-01	9.9613E-01	9.9978E-01	9.9763E-01
.9265	262.83	8.9221E-01	9.8189E-01	9.7754E-01	9.9773E-01	9.9963E-01	9.9743E-01
1.1958	265.75	8.7478E-01	9.7729E-01	9.7464E-01	9.9637E-01	9.9937E-01	9.9721E-01
1.5388	267.18	8.5498E-01	9.7243E-01	9.7178E-01	9.9584E-01	9.9895E-01	9.9693E-01
1.9739	271.84	8.3283E-01	9.6626E-01	9.6607E-01	9.9416E-01	9.9826E-01	9.9658E-01
2.5361	265.34	8.0826E-01	9.5863E-01	9.6186E-01	9.9192E-01	9.9718E-01	9.9613E-01
3.2765	262.77	7.8149E-01	9.4882E-01	9.5333E-01	9.8922E-01	9.9548E-01	9.9547E-01
4.2525	258.46	7.5202E-01	9.3574E-01	9.4881E-01	9.8663E-01	9.9294E-01	9.9368E-01
5.5698	239.97	7.1909E-01	9.1606E-01	9.4101E-01	9.8243E-01	9.8973E-01	9.9311E-01
7.4765	237.73	6.8032E-01	8.9409E-01	9.3111E-01	9.7796E-01	9.8553E-01	9.9226E-01
9.9749	227.89	6.3330E-01	8.6233E-01	9.1312E-01	9.7175E-01	9.8431E-01	9.9171E-01
13.4219	220.39	5.7702E-01	8.2012E-01	9.0127E-01	9.6366E-01	9.7775E-01	9.8891E-01
18.2290	218.34	5.1310E-01	7.6432E-01	8.7425E-01	9.5074E-01	9.6918E-01	9.8693E-01
24.8911	214.80	4.4270E-01	6.9091E-01	8.4413E-01	9.3639E-01	9.5351E-01	9.8469E-01
34.0944	213.93	3.6762E-01	5.9849E-01	8.0630E-01	9.1873E-01	9.3854E-01	9.8469E-01
46.9254	211.09	2.8923E-01	4.8744E-01	7.4573E-01	8.9334E-01	9.1977E-01	9.7738E-01
55.0800	211.75	2.4960E-01	4.2664E-01	7.0353E-01	8.7819E-01	9.0394E-01	9.7449E-01
75.8900	210.95	1.7246E-01	3.0789E-01	6.2144E-01	8.4117E-01	8.8369E-01	9.6677E-01
104.3900	215.27	1.0489E-01	1.8131E-01	5.1364E-01	7.9202E-01	8.5227E-01	9.5151E-01
143.0200	217.05	5.5741E-02	8.3720E-02	3.9301E-01	7.2726E-01	8.1429E-01	9.3813E-01
196.0100	215.65	2.9417E-02	2.3294E-02	2.6400E-01	6.4420E-01	7.6496E-01	9.1420E-01
269.1700	214.85	2.0148E-02	2.6427E-03	1.5503E-01	5.3635E-01	7.1182E-01	8.7921E-01
313.4000	224.05	1.8279E-02	5.9981E-04	1.0711E-01	4.7461E-01	6.7423E-01	8.5443E-01
362.8500	236.07	1.6776E-02	1.0746E-04	6.6396E-02	3.9669E-01	6.3601E-01	8.2171E-01
418.0700	244.05	1.5711E-02	1.6719E-05	3.5947E-02	3.1614E-01	5.8404E-01	7.7619E-01
479.6500	250.45	1.3837E-02	2.5904E-06	1.6732E-02	2.3787E-01	5.2424E-01	7.2335E-01
548.4400	258.25	1.2449E-02	3.8452E-07	6.5890E-03	1.6913E-01	4.6237E-01	6.6461E-01
624.5600	265.45	1.1158E-02	4.3761E-08	2.1132E-03	1.1322E-01	3.9691E-01	6.3365E-01
709.8600	272.25	9.9151E-03	3.116E-09	5.2769E-04	7.0749E-02	3.3361E-01	5.3739E-01
802.9800	276.15	8.6874E-03	1.1409E-10	1.0490E-04	4.1217E-02	2.6548E-01	4.6513E-01
907.1600	281.55	7.4789E-03	1.8420E-12	1.5320E-05	2.2537E-02	2.0463E-01	3.8376E-01
1022.7000	286.95	6.0204E-03	9.7624E-15	1.6565E-06	1.0402E-02	1.3547E-01	2.9337E-01
TOTAL RADIANCE		5.7811E-06	4.5007E-06	4.4889E-06	5.8337E-06	7.6561E-06	9.0577E-06

BEST AVAILABLE COPY

Table 3. (Cont)

BARKING SANDS
2/18/75
9532

PRESSURE (MB)	TEMPERATURE (K)	FREQUENCY					
		668	676	695	707	727	747
TRANSMITTANCE							
.2612	257.17	9.4793E-01	9.8942E-01	9.8183E-01	9.9963E-01	9.9997E-01	9.9870E-01
.3771	252.80	9.2692E-01	9.8690E-01	9.8106E-01	9.9991E-01	9.9999E-01	9.9897E-01
.5515	263.18	9.0943E-01	9.8487E-01	9.7967E-01	9.9925E-01	9.9966E-01	9.9842E-01
.9445	261.94	8.7652E-01	9.8009E-01	9.7545E-01	9.9830E-01	9.9953E-01	9.9817E-01
1.7530	272.37	8.2520E-01	9.6833E-01	9.6542E-01	9.9515E-01	9.9853E-01	9.9757E-01
2.1365	257.47	7.9743E-01	9.6004E-01	9.5951E-01	9.9264E-01	9.9741E-01	9.9728E-01
3.2236	243.14	7.6539E-01	9.4755E-01	9.5295E-01	9.8974E-01	9.9561E-01	9.9073E-01
4.3449	250.76	7.3215E-01	9.3131E-01	9.4527E-01	9.8633E-01	9.9300E-01	9.9077E-01
6.9197	239.30	6.6852E-01	8.9380E-01	9.2829E-01	9.7909E-01	9.8633E-01	9.9410E-01
7.5177	240.21	6.5622E-01	8.8574E-01	9.2482E-01	9.7751E-01	9.8493E-01	9.9370E-01
9.1728	235.97	6.2274E-01	8.6281E-01	9.1515E-01	9.7291E-01	9.8098E-01	9.9254E-01
13.3108	228.44	5.5081E-01	8.0770E-01	8.9242E-01	9.6199E-01	9.7191E-01	9.9031E-01
15.8736	226.25	5.1372E-01	7.7485E-01	8.7408E-01	9.5557E-01	9.6666E-01	9.8914E-01
27.5349	220.24	3.8827E-01	6.3665E-01	8.1709E-01	9.2783E-01	9.4414E-01	9.8442E-01
35.0400	216.55	3.3012E-01	5.5907E-01	7.7663E-01	9.1135E-01	9.3156E-01	9.8151E-01
50.0000	209.75	2.4169E-01	4.2851E-01	7.0074E-01	8.8434E-01	9.1112E-01	9.7590E-01
70.0000	201.45	1.5965E-01	2.9535E-01	6.1424E-01	8.5370E-01	9.8083E-01	9.6317E-01
100.0000	199.35	8.5635E-02	1.6081E-01	5.0666E-01	8.1333E-01	8.5743E-01	9.5905E-01
150.0000	211.05	3.3365E-02	4.6481E-02	3.5343E-01	7.3832E-01	8.3394E-01	9.3979E-01
175.0000	217.35	2.3562E-02	2.4229E-02	2.8714E-01	6.9374E-01	7.8514E-01	9.2692E-01
250.0000	230.15	1.4166E-02	2.0416E-03	1.4176E-01	5.4633E-01	7.0682E-01	8.7717E-01
400.0000	249.15	1.0318E-02	3.8739E-06	2.3120E-02	2.8533E-01	5.5055E-01	7.5531E-01
500.0000	260.85	8.7313E-03	7.4150E-08	4.9369E-03	1.4333E-01	4.5799E-01	6.6946E-01
700.0000	278.75	6.3620E-03	0.	1.0535E-04	4.3750E-02	2.8294E-01	4.8193E-01
800.0000	283.55	5.0173E-03	0.	1.0276E-05	1.9334E-02	1.9674E-01	3.6115E-01
900.0000	287.05	3.2543E-03	0.	6.5471E-07	6.3253E-03	1.0084E-01	2.0058E-01
950.0000	290.75	2.4601E-03	0.	1.3818E-07	3.2432E-03	7.2260E-02	1.4903E-01
1000.0000	295.05	1.8042E-03	0.	2.5609E-08	1.5559E-03	4.6559E-02	9.7514E-02
1020.0000	297.55	1.5671E-03	0.	1.2401E-08	1.1385E-03	3.8443E-02	8.1227E-02
TOTAL RADIANCE		5.8569E-06	4.4495E-06	4.5129E-06	6.1371E-06	7.9620E-06	9.4456E-06

Table 3. (Cont)

KHAJALEIN
2/20/75
9532

PRESSURE (MM)	TEMPERATURE (K)	668	676	693	737	727	747
TRANSMITTANCE							
.1126	248.30	9.6294E-01	9.9488E-01	9.8123E-01	9.9974E-01	1.0000E+00	9.9698E-01
.7414	263.57	9.3295E-01	9.8784E-01	9.8144E-01	9.9957E-01	9.9997E-01	9.9862E-01
.6116	269.17	9.0673E-01	9.8450E-01	9.7929E-01	9.9915E-01	9.9984E-01	9.9637E-01
1.1136	272.02	8.6764E-01	9.7935E-01	9.7769E-01	9.9775E-01	9.9944E-01	9.9804E-01
1.5098	272.57	8.4253E-01	9.7285E-01	9.6880E-01	9.9625E-01	9.9896E-01	9.9779E-01
2.2655	268.17	8.0508E-01	9.6263E-01	9.6197E-01	9.9327E-01	9.9775E-01	9.9734E-01
3.5299	253.71	7.6022E-01	9.4572E-01	9.5155E-01	9.8893E-01	9.9532E-01	9.9653E-01
5.1478	241.11	7.1690E-01	9.2336E-01	9.4127E-01	9.8462E-01	9.9186E-01	9.9596E-01
6.7861	242.22	6.7976E-01	9.0195E-01	9.3148E-01	9.8153E-01	9.8832E-01	9.9494E-01
10.8153	234.90	6.0209E-01	8.4796E-01	9.0499E-01	9.6995E-01	9.7985E-01	9.9136E-01
16.7479	229.96	5.1925E-01	7.8050E-01	8.6092E-01	9.5635E-01	9.6911E-01	9.8963E-01
26.8219	227.07	4.0575E-01	6.5947E-01	8.2605E-01	9.3111E-01	9.4651E-01	9.6471E-01
37.7705	215.59	3.2427E-01	5.5172E-01	7.6976E-01	9.0881E-01	9.3044E-01	9.6091E-01
50.0000	203.25	2.5415E-01	4.4856E-01	7.1361E-01	8.8945E-01	9.1464E-01	9.7673E-01
73.0000	202.35	1.7097E-01	3.1565E-01	6.3281E-01	8.6224E-01	8.9333E-01	9.7102E-01
100.0000	192.15	9.4079E-02	1.7833E-01	5.3180E-01	8.2593E-01	8.6604E-01	9.6294E-01
179.0000	215.14	2.4942E-02	2.7514E-02	3.1122E-01	7.1598E-01	7.9543E-01	9.3416E-01
351.3900	243.92	1.2685E-02	5.1133E-04	9.3610E-02	4.6993E-01	6.6452E-01	8.4550E-01
498.1900	260.78	1.0057E-02	6.5820E-06	2.2430E-02	2.6967E-01	5.4263E-01	7.3690E-01
510.3700	268.70	8.7111E-03	9.8632E-08	4.3602E-03	1.4967E-01	4.3688E-01	6.3000E-01
514.9800	279.46	6.8941E-03	1.9587E-09	6.1713E-04	7.2315E-02	3.3821E-01	5.2336E-01
758.0000	288.44	5.2230E-03	4.6986E-12	2.8003E-05	2.5147E-02	2.1971E-01	3.7917E-01
803.8500	290.11	4.7470E-03	5.1171E-13	9.9914E-06	1.7750E-02	1.8833E-01	3.3552E-01
852.1600	290.74	3.9753E-03	3.8788E-14	2.8257E-06	1.0985E-02	1.4712E-01	2.6813E-01
903.0000	292.00	3.0143E-03	1.8564E-15	6.2667E-07	5.7595E-03	1.0129E-01	1.6914E-01
956.6200	295.59	2.0234E-03	5.2571E-17	9.9442E-08	2.4555E-03	5.9444E-02	1.1479E-01
984.2300	298.00	1.5400E-03	6.9588E-18	3.2912E-08	1.4305E-03	4.1444E-02	8.1095E-02
1011.9300	302.21	1.1535E-03	8.3078E-19	1.0303E-08	8.6590E-04	2.8164E-02	5.6752E-02
TOTAL RADIANCE		5.9488E-06	4.4523E-06	4.6624E-06	5.6935E-06	3.5873E-06	1.0116E-05

Table 3. (Cont)

BARKING SANDS
2/24/75
8531

PRESSURE (MB)	TEMPERATURE (K)	668	676	690	717	727	747
TRANSMITTANCE							
.2274	247.77	9.5253E-01	9.9152E-01	9.8373E-01	9.9892E-01	9.9998E-01	9.9852E-01
.2898	257.40	9.4452E-01	9.8946E-01	9.8318E-01	9.9884E-01	9.9997E-01	9.9816E-01
.3751	260.35	9.3564E-01	9.8756E-01	9.8245E-01	9.9873E-01	9.9995E-01	9.9798E-01
.4453	259.87	9.2572E-01	9.8598E-01	9.8158E-01	9.9855E-01	9.9991E-01	9.9731E-01
.6267	262.05	9.1426E-01	9.8445E-01	9.8143E-01	9.9835E-01	9.9984E-01	9.9754E-01
.8069	263.33	9.0785E-01	9.8242E-01	9.7873E-01	9.9799E-01	9.9973E-01	9.9745E-01
1.0376	263.47	8.8507E-01	9.7949E-01	9.7534E-01	9.9741E-01	9.9954E-01	9.9725E-01
1.1413	259.75	8.6663E-01	9.7539E-01	9.7313E-01	9.9657E-01	9.9929E-01	9.9719E-01
1.7349	261.46	8.4571E-01	9.6986E-01	9.6399E-01	9.9532E-01	9.9876E-01	9.9679E-01
2.2474	264.73	8.2217E-01	9.6286E-01	9.6436E-01	9.9347E-01	9.9796E-01	9.9643E-01
2.9086	262.74	7.9630E-01	9.5403E-01	9.5477E-01	9.9413E-01	9.9673E-01	9.9535E-01
3.8784	246.84	7.6801E-01	9.4223E-01	9.5233E-01	9.8841E-01	9.9499E-01	9.9534E-01
5.0254	276.65	7.3618E-01	9.2613E-01	9.4390E-01	9.8523E-01	9.9243E-01	9.9452E-01
6.6715	237.27	6.9483E-01	9.0463E-01	9.3667E-01	9.8123E-01	9.8897E-01	9.9340E-01
8.8921	237.28	6.5426E-01	8.7640E-01	9.2457E-01	9.7574E-01	9.8432E-01	9.9182E-01
11.9675	227.02	6.0115E-01	8.3285E-01	9.0324E-01	9.6862E-01	9.7466E-01	9.9100E-01
16.2179	221.47	5.3959E-01	7.8891E-01	8.8349E-01	9.5946E-01	9.7144E-01	9.8833E-01
22.0045	218.82	4.7199E-01	7.2783E-01	8.6327E-01	9.4723E-01	9.6152E-01	9.8579E-01
25.6814	212.34	4.3616E-01	6.8449E-01	8.4453E-01	9.3952E-01	9.5523E-01	9.8440E-01
30.0200	218.57	3.9903E-01	6.4016E-01	8.2522E-01	9.3445E-01	9.4382E-01	9.8249E-01
40.9800	215.45	3.2363E-01	5.3699E-01	7.7338E-01	9.1855E-01	9.3107E-01	9.7391E-01
56.3200	209.05	2.4543E-01	4.2084E-01	7.0499E-01	8.8155E-01	9.1184E-01	9.7356E-01
78.7900	193.35	1.6491E-01	2.8763E-01	6.2185E-01	8.5109E-01	8.8394E-01	9.6747E-01
111.4400	199.05	9.3712E-02	1.5757E-01	5.2921E-01	8.1175E-01	8.6225E-01	9.5422E-01
155.3000	217.45	4.7545E-02	6.2757E-02	3.9746E-01	7.4879E-01	8.2399E-01	9.4376E-01
212.5800	222.45	2.6471E-02	1.4848E-02	2.5578E-01	6.5122E-01	7.7472E-01	9.1507E-01
286.1400	237.15	1.9351E-02	1.5991E-03	1.3426E-01	5.1520E-01	7.0069E-01	8.6677E-01
378.6600	257.15	1.5991E-02	6.5603E-03	5.0592E-02	3.5460E-01	6.1104E-01	7.3419E-01
493.2200	265.35	1.3215E-02	1.6510E-03	1.1347E-02	2.0135E-01	5.0217E-01	6.9731E-01
633.4700	275.65	1.0727E-02	2.5947E-04	1.2414E-03	9.1721E-02	3.7433E-01	5.8234E-01
715.9400	281.95	9.5639E-03	1.7463E-03	2.9343E-04	5.6489E-02	3.1372E-01	5.1649E-01
806.9000	286.75	8.0623E-03	6.2923E-04	4.9584E-05	3.1308E-02	2.3484E-01	4.2621E-01
907.4700	290.55	6.0277E-03	8.1790E-05	5.2433E-06	1.4220E-02	1.5667E-01	2.9612E-01
1019.0000	294.05	3.6041E-03	2.7325E-05	2.7689E-07	4.5343E-03	7.2886E-02	1.5559E-01
TOTAL RADIANCE		5.5072E-06	4.1942E-06	4.5131E-06	6.5410E-06	8.4929E-06	1.0135E-05

Table 3. (Cont)

BARKING SANDS
2/26/75
8531

PRESSURE (MP)	TEMPERATURE (K)	FREQUENCY					
		668	676	695	707	727	747
TRANSMITTANCE							
.3383	259.51	9.3613E-01	9.8768E-01	9.8169E-01	9.9865E-01	9.9994E-01	9.9745E-01
.5000	259.94	9.1624E-01	9.8470E-01	9.8119E-01	9.9835E-01	9.9985E-01	9.9711E-01
.7000	264.68	8.9839E-01	9.8201E-01	9.7416E-01	9.9789E-01	9.9970E-01	9.9687E-01
1.0000	264.66	8.7473E-01	9.7728E-01	9.7446E-01	9.9695E-01	9.9933E-01	9.9655E-01
2.0000	261.77	8.1506E-01	9.6060E-01	9.6247E-01	9.9277E-01	9.9759E-01	9.9573E-01
5.0000	276.56	7.1124E-01	9.1272E-01	9.3330E-01	9.8194E-01	9.8922E-01	9.9239E-01
10.0000	229.59	5.9879E-01	8.3737E-01	9.0768E-01	9.6661E-01	9.7585E-01	9.8833E-01
20.0000	221.84	4.4420E-01	7.0059E-01	8.4380E-01	9.3709E-01	9.5167E-01	9.8322E-01
30.0000	216.92	3.5142E-01	5.8105E-01	7.9165E-01	9.1035E-01	9.3468E-01	9.7882E-01
36.6224	216.97	3.0502E-01	5.1213E-01	7.5125E-01	8.9395E-01	9.1853E-01	9.7555E-01
40.0000	215.75	2.8346E-01	4.7981E-01	7.3410E-01	8.8594E-01	9.1268E-01	9.7396E-01
50.0000	213.95	2.2881E-01	3.9443E-01	6.8055E-01	8.6447E-01	8.9723E-01	9.6944E-01
70.0000	198.15	1.4993E-01	2.6182E-01	5.9137E-01	8.2984E-01	8.7322E-01	9.6201E-01
100.0000	196.65	8.0464E-02	1.3259E-01	4.8787E-01	7.8627E-01	8.4444E-01	9.5239E-01
150.0000	208.17	3.4279E-02	3.3916E-02	3.3195E-01	7.0603E-01	7.9691E-01	9.3212E-01
200.0000	213.85	2.2769E-02	6.4268E-03	2.1204E-01	6.0953E-01	7.4557E-01	9.0264E-01
300.0000	238.05	1.6190E-02	1.1993E-02	7.0473E-02	4.6610E-01	6.3826E-01	8.2277E-01
350.0000	245.15	1.5113E-02	1.6184E-03	3.6583E-02	3.1773E-01	5.8356E-01	7.7744E-01
400.0000	252.45	1.3378E-02	2.7409E-03	1.7570E-02	2.4292E-01	5.3212E-01	7.3042E-01
450.0000	260.05	1.2407E-02	5.1337E-07	7.7005E-03	1.8117E-01	4.8142E-01	6.8335E-01
500.0000	266.45	1.1764E-02	9.4820E-04	3.1841E-03	1.3204E-01	4.3175E-01	6.3834E-01
550.0000	271.05	1.0441E-02	1.5674E-04	1.2065E-03	9.4951E-02	3.8431E-01	5.9894E-01
600.0000	273.15	1.0120E-02	2.2762E-04	4.4091E-04	6.7425E-02	3.3947E-01	5.4616E-01
650.0000	276.95	9.2768E-03	2.8607E-10	1.5660E-04	4.8614E-02	2.9724E-01	5.0339E-01
700.0000	280.45	8.5984E-03	3.0762E-11	5.4501E-05	3.4784E-02	2.5809E-01	4.6159E-01
750.0000	282.45	7.9856E-03	2.7924E-12	1.9143E-05	2.5053E-02	2.2271E-01	4.2256E-01
800.0000	287.25	7.4205E-03	2.1348E-13	6.7272E-06	1.8472E-02	1.9446E-01	3.8527E-01
840.0000	289.25	6.9333E-03	2.4212E-14	2.9164E-06	1.3922E-02	1.6509E-01	3.5179E-01
850.0000	287.85	6.7458E-03	1.3435E-14	2.3806E-06	1.3030E-02	1.5873E-01	3.4167E-01
869.0000	285.35	6.2995E-03	4.5108E-15	1.4538E-06	1.1073E-02	1.4162E-01	3.1076E-01
898.0000	286.05	5.2751E-03	7.0141E-16	5.9155E-07	7.8739E-03	1.1076E-01	2.4935E-01
950.0000	293.95	3.4804E-03	1.6472E-17	8.4517E-08	3.5431E-03	6.3336E-02	1.4891E-01
1008.0000	294.65	2.0364E-03	1.6136E-19	7.1252E-09	1.2781E-03	3.0831E-02	7.6894E-02
1020.6000	292.15	1.8195E-03	5.9751E-20	4.3126E-09	1.0265E-03	2.6940E-02	6.7519E-02
TOTAL RADIANCE		5.7314E-06	4.3436E-06	4.328E-06	5.9458E-06	7.9376E-06	9.5074E-06

Table 3. (Cont)

KWAJALEIN
2/27/75
9532

PRESSURE (MM)	TEMPERATURE (K)	FREQUENCY					
		668	676	695	707	727	747
TRANSMITTANCE							
.1778	249.62	9.6168E-01	9.9506E-01	9.8287E-01	9.9973E-01	1.0000E+00	9.9888E-01
.2851	253.66	9.3768E-01	9.8670E-01	9.8162E-01	9.9962E-01	9.9997E-01	9.9857E-01
.5084	269.77	9.1349E-01	9.8530E-01	9.7395E-01	9.9931E-01	9.9986E-01	9.9836E-01
.7082	269.77	8.9531E-01	9.8303E-01	9.7794E-01	9.9885E-01	9.9975E-01	9.9819E-01
1.0005	275.67	8.7183E-01	9.7916E-01	9.7442E-01	9.9797E-01	9.9949E-01	9.9799E-01
1.4999	279.41	8.7858E-01	9.7188E-01	9.6502E-01	9.9601E-01	9.9885E-01	9.9707E-01
2.0195	262.81	8.1119E-01	9.6444E-01	9.6227E-01	9.9383E-01	9.9797E-01	9.9735E-01
4.1208	256.96	7.3664E-01	9.3436E-01	9.4595E-01	9.8650E-01	9.9317E-01	9.9532E-01
7.3911	237.02	6.5808E-01	8.6712E-01	9.2514E-01	9.7759E-01	9.8497E-01	9.9399E-01
10.1670	232.43	6.0396E-01	8.4917E-01	9.0346E-01	9.7244E-01	9.7874E-01	9.9190E-01
12.1900	230.62	5.6871E-01	8.2211E-01	8.9942E-01	9.6496E-01	9.7436E-01	9.9079E-01
20.4300	226.07	4.5711E-01	7.1811E-01	8.5428E-01	9.4401E-01	9.5704E-01	9.8698E-01
30.9600	218.49	3.5973E-01	5.9977E-01	7.9690E-01	9.1966E-01	9.3756E-01	9.8671E-01
49.6900	209.24	2.4298E-01	4.3764E-01	7.0080E-01	8.8439E-01	9.1101E-01	9.7574E-01
98.8700	199.27	8.7348E-02	1.6359E-01	5.1347E-01	8.1726E-01	8.6019E-01	9.6493E-01
151.5400	207.73	3.2382E-02	4.5396E-02	3.5982E-01	7.4699E-01	9.1449E-01	9.4335E-01
193.7800	229.29	1.8532E-02	1.1719E-02	2.3309E-01	6.5984E-01	7.6626E-01	9.1702E-01
250.3500	231.16	1.4245E-02	1.9584E-03	1.4554E-01	5.5674E-01	7.1331E-01	9.6102E-01
279.0800	237.37	1.3097E-02	6.6407E-04	1.0625E-01	4.9714E-01	6.8428E-01	9.5746E-01
299.6000	241.57	1.2461E-02	2.9835E-04	8.3217E-02	4.5678E-01	6.6291E-01	9.3317E-01
332.4200	248.08	1.1583E-02	7.6304E-05	5.4287E-02	3.4733E-01	6.2756E-01	9.0741E-01
368.0200	252.97	1.0759E-02	1.6199E-05	3.2926E-02	3.2163E-01	5.8811E-01	7.7260E-01
406.5900	257.87	9.9722E-03	2.9558E-06	1.8479E-02	2.5931E-01	5.4531E-01	7.3321E-01
448.4200	263.23	9.2107E-03	4.8909E-07	9.4173E-03	2.0179E-01	5.0005E-01	6.8671E-01
478.1100	266.57	8.7197E-03	1.4462E-07	5.6553E-03	1.6777E-01	4.7008E-01	6.5436E-01
509.4700	268.41	8.2399E-03	4.2442E-08	3.2257E-03	1.3736E-01	4.3402E-01	6.2169E-01
559.7700	273.27	7.5190E-03	6.0111E-09	1.2415E-03	9.8334E-02	3.8902E-01	5.6577E-01
613.9900	278.81	6.7673E-03	6.8467E-10	4.0363E-04	6.6524E-02	3.3541E-01	5.1003E-01
713.6100	285.04	5.4096E-03	7.6283E-12	4.0113E-05	3.0004E-02	2.3979E-01	3.9416E-01
757.2600	286.86	4.9152E-03	8.5308E-13	1.4514E-05	2.1328E-02	2.0663E-01	3.4363E-01
803.3900	286.69	4.2374E-03	6.8150E-14	4.4781E-06	1.3949E-02	1.6636E-01	2.9235E-01
851.9700	289.68	3.2005E-03	3.3708E-15	1.0089E-06	7.3623E-03	1.1449E-01	2.0478E-01
877.1500	291.18	2.7165E-03	6.4339E-16	4.4313E-07	5.1636E-03	9.2304E-02	1.6690E-01
902.9300	293.29	2.3361E-03	1.1451E-16	1.9433E-07	3.6639E-03	7.5211E-02	1.3759E-01
929.3200	293.98	1.9645E-03	1.7353E-17	7.9514E-08	2.5000E-03	5.9457E-02	1.1169E-01
956.7400	295.52	1.5291E-03	2.2698E-18	2.7367E-08	1.5525E-03	4.2921E-02	8.1173E-02
983.9400	297.94	1.1266E-03	2.3690E-19	8.2312E-09	8.2519E-04	2.8276E-02	5.5418E-02
1011.6000	301.87	8.0666E-04	2.1685E-20	2.2905E-09	4.2930E-04	1.8001E-02	3.6394E-02
TOTAL RADIANCE		5.8722E-06	4.3654E-06	4.4596E-06	6.4323E-06	8.3899E-06	9.8051E-06

Table 3. (Cont)

BARKING SANDS
2/28/75
9532

PRESSURE (MB)	TEMPERATURE (K)	668	676	692	FREQUENCY 737	727	747
TRANSMITTANCE							
.3347	253.99	9.3478E-01	9.8817E-01	9.8183E-01	9.9962E-01	9.9990E-01	9.9873E-01
.4000	262.61	9.2445E-01	9.8657E-01	9.8109E-01	9.9943E-01	9.9993E-01	9.9807E-01
.5854	266.29	9.0629E-01	9.8448E-01	9.7937E-01	9.9915E-01	9.9984E-01	9.9848E-01
.6645	262.64	8.9920E-01	9.8359E-01	9.7857E-01	9.9899E-01	9.9974E-01	9.9810E-01
.8574	264.26	8.8117E-01	9.8122E-01	9.7643E-01	9.9851E-01	9.9965E-01	9.9820E-01
1.1142	249.16	8.6437E-01	9.7775E-01	9.7343E-01	9.9781E-01	9.9942E-01	9.9810E-01
1.6574	261.13	8.3188E-01	9.6990E-01	9.6723E-01	9.9599E-01	9.9877E-01	9.9730E-01
2.8617	239.64	7.8045E-01	9.5305E-01	9.5667E-01	9.9161E-01	9.9871E-01	9.9730E-01
4.2946	245.52	7.3534E-01	9.3212E-01	9.4654E-01	9.8717E-01	9.9354E-01	9.9648E-01
7.6231	228.57	6.5617E-01	8.8458E-01	9.2647E-01	9.7624E-01	9.8561E-01	9.9434E-01
11.9875	225.37	5.7661E-01	8.2669E-01	9.0225E-01	9.6752E-01	9.7673E-01	9.9237E-01
16.0428	222.37	5.1191E-01	7.7332E-01	8.8177E-01	9.5735E-01	9.6845E-01	9.9014E-01
21.7975	218.62	4.4493E-01	7.0278E-01	8.5138E-01	9.4389E-01	9.5740E-01	9.8790E-01
30.0000	217.65	3.6886E-01	6.1077E-01	8.0787E-01	9.2547E-01	9.4264E-01	9.8480E-01
40.0000	215.15	2.9787E-01	5.1275E-01	7.5396E-01	9.1471E-01	9.2625E-01	9.8195E-01
50.0000	211.15	2.4195E-01	4.2871E-01	7.0303E-01	8.8607E-01	9.1177E-01	9.7735E-01
70.0000	201.15	1.5384E-01	2.9547E-01	6.1543E-01	8.5473E-01	8.8797E-01	9.7005E-01
100.0000	200.15	8.5752E-02	1.6091E-01	5.0708E-01	8.1353E-01	8.5824E-01	9.6033E-01
150.0000	209.75	3.3799E-02	4.8491E-02	3.5383E-01	7.3861E-01	8.1164E-01	9.4051E-01
175.0000	215.25	2.3593E-02	2.4184E-02	2.8465E-01	6.4575E-01	7.8654E-01	9.2779E-01
200.0000	219.75	1.8497E-02	1.1302E-02	2.3205E-01	6.5001E-01	7.6236E-01	9.1325E-01
250.0000	224.15	1.4284E-02	2.0318E-03	1.4574E-01	5.5755E-01	7.1512E-01	8.8195E-01
300.0000	234.15	1.2594E-02	2.9696E-04	8.6803E-02	4.6621E-01	6.6783E-01	8.4590E-01
400.0000	251.35	1.0432E-02	4.4920E-06	2.4173E-02	2.9277E-01	5.6533E-01	7.6097E-01
500.0000	262.35	8.7660E-03	7.0061E-08	4.9738E-03	1.6404E-01	4.6214E-01	6.6694E-01
600.0000	271.85	7.4441E-03	1.5895E-03	7.8385E-04	8.5692E-02	3.6723E-01	5.7213E-01
650.0000	275.75	6.9004E-03	2.0192E-10	2.9157E-04	6.1383E-02	3.2606E-01	5.2789E-01
700.0000	277.35	6.4346E-03	2.2324E-11	1.0452E-04	4.4272E-02	2.8893E-01	4.8774E-01
750.0000	279.95	5.9491E-03	2.0967E-12	3.6496E-05	3.1605E-02	2.5261E-01	4.4411E-01
800.0000	283.25	5.4543E-03	1.6356E-13	1.2423E-05	2.2320E-02	2.1765E-01	3.9875E-01
850.0000	285.55	4.8671E-03	1.0246E-14	3.9737E-06	1.5129E-02	1.8137E-01	3.4457E-01
900.0000	287.25	3.9776E-03	4.7218E-16	1.0457E-06	9.1333E-03	1.3661E-01	2.6664E-01
950.0000	290.85	3.0056E-03	1.5812E-17	2.2489E-07	4.7105E-03	9.3130E-02	1.8643E-01
1000.0000	294.15	2.1809E-03	3.9941E-19	4.1389E-08	2.2449E-03	5.9573E-02	1.2326E-01
1022.0000	297.85	1.8397E-03	7.0943E-20	1.8132E-08	1.5583E-03	4.7395E-02	9.9111E-02
TOTAL RADIANCE		5.4738E-06	4.2326E-06	4.3107E-06	6.0555E-06	8.0157E-06	9.5811E-06

Table 3. (Cont)

KWAJALEIN
2/28/75
8531

PRESSURE (MM)	TEMPERATURE (K)	668	676	695	737	727	747
TRANSMITTANCE							
.1170	251.42	9.6557E-01	9.9560E-01	9.8363E-01	9.9692E-01	1.0000E+00	9.9822E-01
.2051	247.93	9.5474E-01	9.9216E-01	9.8266E-01	9.9833E-01	9.9498E-01	9.9789E-01
.3759	255.80	9.4279E-01	9.8906E-01	9.8231E-01	9.9875E-01	9.9997E-01	9.9770E-01
.5153	257.84	9.2325E-01	9.8566E-01	9.8103E-01	9.9852E-01	9.9991E-01	9.9745E-01
.7576	267.05	9.0481E-01	9.8308E-01	9.7411E-01	9.9819E-01	9.9977E-01	9.9723E-01
1.0974	275.99	8.8139E-01	9.7872E-01	9.7553E-01	9.9701E-01	9.9943E-01	9.9643E-01
2.1364	262.73	8.3011E-01	9.6555E-01	9.6935E-01	9.9388E-01	9.9821E-01	9.9623E-01
3.1012	255.79	7.9228E-01	9.5278E-01	9.5773E-01	9.9055E-01	9.9644E-01	9.9555E-01
4.4799	244.22	7.4872E-01	9.3330E-01	9.4650E-01	9.8628E-01	9.9332E-01	9.9449E-01
5.9327	237.06	7.1400E-01	9.1414E-01	9.4029E-01	9.8265E-01	9.9023E-01	9.9343E-01
7.9727	232.13	6.7256E-01	8.8842E-01	9.2957E-01	9.7600E-01	9.8615E-01	9.9217E-01
10.6186	232.13	6.2357E-01	8.5523E-01	9.1579E-01	9.7104E-01	9.8095E-01	9.9045E-01
12.7740	231.48	5.9567E-01	8.3504E-01	9.0739E-01	9.6753E-01	9.7779E-01	9.8941E-01
14.2242	227.25	5.6582E-01	8.1187E-01	8.9779E-01	9.6290E-01	9.7467E-01	9.8632E-01
16.5175	224.61	5.3436E-01	7.8523E-01	8.8701E-01	9.5774E-01	9.6995E-01	9.8724E-01
19.1770	227.23	4.9934E-01	7.5280E-01	8.7362E-01	9.5132E-01	9.6468E-01	9.8597E-01
22.5020	224.55	4.6525E-01	7.1816E-01	8.5384E-01	9.4418E-01	9.5881E-01	9.8404E-01
26.1500	225.41	4.3129E-01	6.7920E-01	8.4137E-01	9.3594E-01	9.5214E-01	9.8314E-01
30.1900	223.92	3.9470E-01	6.3612E-01	8.2065E-01	9.2646E-01	9.4457E-01	9.8158E-01
35.4277	218.14	3.5826E-01	5.8817E-01	7.9528E-01	9.1601E-01	9.3645E-01	9.7944E-01
41.4000	214.59	3.2079E-01	5.3535E-01	7.6841E-01	9.0475E-01	9.2776E-01	9.7732E-01
48.5520	210.87	2.8199E-01	4.7763E-01	7.3539E-01	8.9238E-01	9.1842E-01	9.7442E-01
57.0500	207.04	2.4243E-01	4.1604E-01	7.0054E-01	8.7887E-01	9.0844E-01	9.7224E-01
67.4500	198.60	2.0168E-01	3.4987E-01	6.6093E-01	8.6458E-01	8.9501E-01	9.6939E-01
80.1900	191.57	1.6098E-01	2.8073E-01	6.1971E-01	8.4983E-01	8.8747E-01	9.6653E-01
95.8400	184.42	1.2225E-01	2.1128E-01	5.7165E-01	8.3347E-01	8.7598E-01	9.6336E-01
114.7800	195.58	8.9271E-02	1.4842E-01	5.1849E-01	8.1291E-01	8.6268E-01	9.5912E-01
135.4300	202.51	6.3519E-02	9.6260E-02	4.5706E-01	7.8522E-01	8.4451E-01	9.5631E-01
159.7900	209.05	4.4318E-02	5.6257E-02	3.8939E-01	7.4920E-01	8.2321E-01	9.4371E-01
187.1100	217.79	3.2801E-02	2.8929E-02	3.1827E-01	7.0315E-01	7.9782E-01	9.3079E-01
218.2200	226.57	2.5605E-02	1.2768E-02	2.4747E-01	6.4591E-01	7.6806E-01	9.1252E-01
252.7900	234.65	2.1491E-02	4.6913E-03	1.8164E-01	5.7549E-01	7.3406E-01	8.8823E-01
291.5500	240.72	1.8980E-02	1.3746E-03	1.2463E-01	4.9883E-01	6.9573E-01	8.5802E-01
334.9200	249.21	1.7127E-02	3.1307E-04	7.7792E-02	4.1540E-01	6.4995E-01	8.2631E-01
382.8900	258.04	1.5478E-02	5.6554E-05	4.3033E-02	3.2937E-01	5.9551E-01	7.7236E-01
436.0300	262.95	1.3933E-02	8.8120E-06	2.1796E-02	2.4933E-01	5.3635E-01	7.1806E-01
495.3500	269.79	1.2511E-02	1.3428E-06	8.8983E-03	1.7896E-01	4.7378E-01	6.5788E-01
561.0900	276.17	1.1122E-02	1.9439E-07	3.1071E-03	1.2119E-01	4.0802E-01	5.9212E-01
633.8100	281.07	9.7935E-03	2.1432E-08	3.7488E-04	7.7334E-02	3.4047E-01	5.2251E-01
714.6700	285.14	8.5038E-03	1.44471E-09	1.8979E-04	4.6307E-02	2.7313E-01	4.4941E-01
804.4800	287.47	6.3275E-03	4.2288E-11	2.4735E-05	2.1840E-02	1.8007E-01	3.1631E-01
903.8000	293.82	3.1655E-03	2.9771E-13	1.2352E-06	5.8631E-03	7.3932E-02	1.3943E-01
1011.9000	302.64	1.0382E-03	3.7035E-16	1.8468E-08	8.1425E-04	1.7684E-02	3.7227E-02
TOTAL RADIANCE		5.6992E-06	4.2566E-06	4.6461E-06	6.8033E-06	8.7466E-06	1.0133E-05

Table 3. (Cont)

KWAJALEIN
4/01/75
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PRESSURE (MM)	TEMPERATURE (K)	668	676	695	FREQUENCY 707	727	747
TRANSMITTANCE							
.1124	242.67	9.6516E-01	9.9516E-01	9.6195E-01	9.9895E-01	1.0000E+00	9.9828E-01
.2176	254.37	9.5207E-01	9.9140E-01	9.8304E-01	9.9884E-01	9.9998E-01	9.9793E-01
.6664	267.78	9.0921E-01	9.8773E-01	9.7162E-01	9.9821E-01	9.9961E-01	9.9731E-01
.9625	262.07	8.9457E-01	9.8132E-01	9.7770E-01	9.9777E-01	9.9965E-01	9.9713E-01
1.9453	271.75	8.3109E-01	9.6574E-01	9.6563E-01	9.9405E-01	9.9825E-01	9.9631E-01
7.3752	257.59	7.7461E-01	9.4600E-01	9.5386E-01	9.8859E-01	9.9521E-01	9.9505E-01
6.1261	238.71	7.0228E-01	9.0807E-01	9.1687E-01	9.8082E-01	9.8864E-01	9.9282E-01
15.1570	230.44	5.4165E-01	7.9817E-01	8.8819E-01	9.5699E-01	9.5965E-01	9.8671E-01
24.2657	218.20	4.0157E-01	5.4524E-01	8.2346E-01	9.7625E-01	9.4534E-01	9.8119E-01
51.7000	208.18	2.5612E-01	4.3817E-01	7.1304E-01	8.8245E-01	9.1201E-01	9.7311E-01
75.7300	190.71	1.6446E-01	2.8719E-01	6.2212E-01	8.5014E-01	8.8838E-01	9.6667E-01
103.3500	191.17	9.9614E-02	1.6492E-01	5.7697E-01	8.1957E-01	8.6699E-01	9.6982E-01
128.4800	197.92	6.4999E-02	9.9394E-02	4.6384E-01	7.8872E-01	8.4687E-01	9.5385E-01
200.8700	221.18	2.7299E-02	1.6747E-02	2.7391E-01	6.7133E-01	7.7932E-01	9.2192E-01
240.5100	235.12	2.1773E-02	4.9093E-03	1.9123E-01	5.8754E-01	7.3751E-01	8.9344E-01
300.1100	244.21	1.8016E-02	6.6333E-04	1.0105E-01	4.5964E-01	6.7137E-01	8.4132E-01
380.6400	255.16	1.5147E-02	3.4776E-05	3.7722E-02	3.1177E-01	5.7893E-01	7.6478E-01
461.0700	265.51	1.2940E-02	2.0813E-06	1.1719E-02	1.9830E-01	4.8839E-01	6.8031E-01
542.2700	273.13	1.1167E-02	1.8725E-07	3.2294E-03	1.2282E-01	4.0802E-01	5.9645E-01
617.1700	280.32	9.8136E-03	2.0112E-08	8.9559E-04	7.7949E-02	3.3312E-01	5.2542E-01
691.7700	282.92	8.5217E-03	1.3143E-09	1.9437E-04	4.6477E-02	2.7111E-01	4.5133E-01
756.3500	287.22	7.5578E-03	1.1069E-10	5.2202E-05	3.0294E-02	2.2245E-01	3.9344E-01
802.4900	285.75	6.5887E-03	1.5701E-11	1.8193E-06	2.1555E-02	1.8221E-01	3.3399E-01
951.0600	290.61	5.0677E-03	1.4825E-12	4.7611E-06	1.2250E-02	1.2397E-01	2.4300E-01
876.1800	290.77	4.3081E-03	3.9903E-13	2.2319E-06	8.9707E-03	1.0491E-01	1.9999E-01
501.9900	291.64	3.6006E-03	9.7912E-14	9.9207E-07	6.4053E-03	8.3382E-02	1.6141E-01
928.4100	293.14	2.8750E-03	2.0898E-14	3.9593E-07	4.2720E-03	5.2011E-02	1.2375E-01
955.4200	295.69	2.1956E-03	3.8647E-15	1.4143E-07	2.8735E-03	4.4510E-02	8.9911E-02
1010.6000	302.29	1.1707E-03	8.6902E-17	1.3444E-08	9.0129E-04	1.3570E-02	4.2539E-02
TOTAL RADIANCE		5.7700E-06	4.2667E-06	4.5937E-06	6.6595E-06	3.5453E-06	1.0120E-06

Table 4. Comparison of Measured With Computed Radiances for the 9 Cases Studied

	Location	Date	θ	668	676	695	707	727	746
Calc	Barking Sands	2/25/75	4.5°	55.1	41.9	45.1	65.0	84.9	100.3
Meas	22.0N 159.8W	8531		54.1	42.5	41.5	57.4	79.9	95.0
Calc	Pt. Mugu	2/18/75	9.4°	57.8	45.0	44.9	58.3	76.6	90.6
Meas	34.1N 119.1W	8531		57.6	46.1	43.1	52.4	71.3	86.0
Calc	Kwajalein	2/28/75	0.5°	57.0	42.6	46.5	68.0	87.5	101.8
Meas	8.7N 167.7E	8531		55.1	42.2	41.7	59.5	83.0	98.4
Calc	Kwajalein	2/27/75	37.1°	58.7	43.7	44.6	64.3	83.9	98.1
Meas	8.7N 167.7E	9532		56.0	43.7	39.9	56.6	77.0	95.0
Calc	Barking Sands	2/28/75	37.0°	54.7	42.3	43.1	60.6	80.2	95.8
Meas	22.0N 159.8W	9532		53.1	42.6	39.0	53.6	71.8	88.6
Calc	Barking Sands	2/18/75	37.0°	58.6	44.5	45.1	61.4	79.6	94.5
Meas	22.0N 159.8W	9532		54.8	43.6	40.3	53.3	71.0	86.2
Calc	Barking Sands	2/26/75	46.4°	57.3	43.4	43.3	59.5	79.4	95.1
Meas	22.0N 159.8W	8531		54.9	44.2	40.0	52.7	73.8	89.7
Calc	Kwajalein	2/20/75	27.5°	59.5	44.5	46.6	66.9	85.9	101.1
Meas	8.7N 167.7E	9532		54.4	42.4	40.8	60.9	80.7	97.5
Calc	Kwajalein	4/1/75	22.6°	57.7	42.7	45.9	66.6	85.5	100.2
Meas	8.7N 167.7E	8531		57.0	43.0	41.2	58.2	80.1	94.8

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